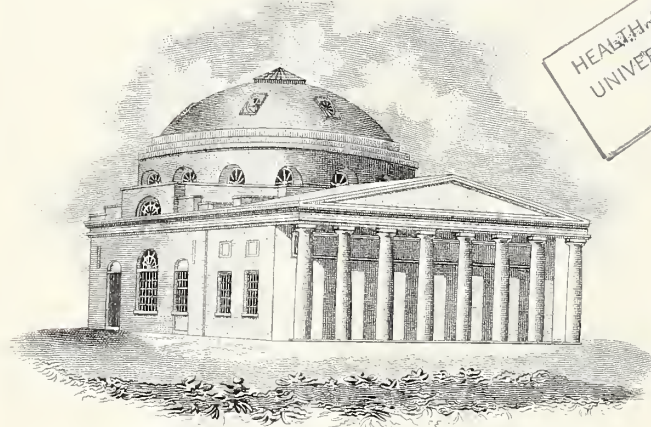


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OF THE

Indiana State Medical Association

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

Issued Monthly
Under the Direction of the Council

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

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VOLUME XIX

JANUARY, 1926

NUMBER 1

ORIGINAL ARTICLES

THE DIAGNOSIS OF CHRONIC MIDDLE EAR SUPPURATION*

GEORGE W. MACKENZIE,
PHILADELPHIA

It seems to me that the most frequent question put by graduate students in otology is, "Will you please tell us in a few words your routine treatment for chronic middle ear suppuration?"; and just as regularly the answer has been, "There is no satisfactory routine treatment for any disease and particularly for chronic middle ear suppuration, for the reason that all diseases called by the same name are not alike in all details." The pathologic conditions present in one case may be quite different from those present in another; consequently, that form of treatment which may be suitable for the one may not be for the other. The ideal form of treatment in a given case is that which is directed toward the removal of those particular factors which caused the disease, favored its continuance, or interfered with nature's attempt at making repairs and restoring health. It behooves us as otologists to ascertain from every possible avenue of information, and with the aid of capable laboratory and other experts, the exact location and nature of the pathologic changes present in the ear and its adnexa; besides, the present state of the body as a whole and its bearing upon the local condition and vice versa. To know all this constitutes the diagnosis, anything less does not. The mere ability to designate the disease otitis media chronica suppurativa does not constitute a diagnosis nor make an otologist, for the patient had done as well when he told in the history that he "had had a running ear for a number of years". The skill of the otologist depends upon his ability to obtain a satisfactory history, accurate functional hearing and labyrinthine test findings, otoscopic and tubal findings, etc., interpret the meaning of these several groups of findings, and from the ensembled whole to be able to conclude the exact location of the pathologic process, its nature and the probable outcome if left alone, or under selective treatment. It is not going too far to

include in the diagnosis also a knowledge of what is *not* wrong. I have in mind more than one case in which the surgeon opened the labyrinth on the mere assumption that it was possibly seriously involved, when in fact, there was nothing worse than a slight transient congestion. In these cases he was led to believe that the labyrinth was seriously involved because the patient happened to have some dizziness. Upon asking about the presence of spontaneous nystagmus, its character, the reactions to turning, the caloric and galvanic test findings, it was learned that no attempt had been made to ascertain them. Many of you may be able to recall that when Welty once suggested a thorough examination of the labyrinth in all cases of chronic middle ear suppuration, the consensus of opinion was against him.

The function of the doctor is to obtain as successful results as possible in the treatment of disease. The first essential to this is the diagnosis and one no less comprehensive than that outlined above.

Let us refer briefly to the diagnostic factors which up to now have been referred to only in a general way. The local ones deserve first consideration.

Nasal and nasopharyngeal obstructions are well known factors in the etiology of acute middle ear suppuration and their continued presence can only tend to prolong the suppurative process and thereby transform it into a chronic one. The best proof of this assertion is to be found in the occasional cure of a subacute middle ear discharge, that we observe following the removal of these obstructions. There are cases on the other hand, where the acute middle ear suppuration has gone over into the chronic form because of some other factor in which the early adenoid overgrowth has in the meantime shrunken materially, in consequence of secondary sclerosis. In such a case the removal of the adenoid remnant will naturally fail to accomplish much for the middle ear suppuration. For the otologist in charge of the case to emphasize the importance of this remnant of adenoid and neglect something else bearing more directly upon the suppuration, would in a measure, constitute a diagnostic mistake, and the removal of the adenoids alone, misapplied treatment. The mistake lies rather in being blind to other factors and

*Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the Marion Session, September, 1925.

in expecting or promising too much from the removal of these nasopharyngeal obstructions alone.

Adhesive bands in the middle ear spaces are more often a factor in keeping up a middle ear suppuration than is commonly supposed. The majority of chronic attic suppurations with perforation of Shrapnel's membrane are due to an étage formation, closing off, more or less, the drainage and ventilation of the attic region. These adhesions were originally formed by the organization of seromucous exudate left in the middle ear after an attack of acute exudative catarrh. If the exudate organizes in the aditus ad antrum then this isthmus between the middle ear and the antrum is narrowed and a subsequent attack of acute middle ear suppuration is prone to be followed by mastoiditis, acute or chronic. If the mastoiditis is of the chronic form the patient will present but few symptoms other than the chronic discharge, unless the case should develop further complications. The majority of chronic middle ear suppurations coming to operation reveal a hard, eburnated cortex and other signs of chronic osteitis. The accurate diagnosis of these several conditions is important since they serve as a guide to treatment.

As a factor of local importance in the diagnosis we must include a knowledge of the presence or absence of a cholesteatoma. Its presence is revealed by its pearly appearance when it is visible otoscopically, by the character of the aural discharge, including its odor and intermittances and the appearance of cholesterol crystals under the microscope. Besides, we should know of its size, when present, whether it has grown sufficiently large as to cause a resorption of one of the bony walls of the middle ear; whether as a result of the resorption any of the neighboring tissues are involved, and if involved, the nature of the involvement. Is the cholesteatoma infected or not? Finally, is the cholesteatoma the particular factor making for chronicity?

Caries or necrosis of the ossicles or of the bony walls of the attic, especially the superior, is not an uncommon local condition which tends to prolong a suppurative process of the middle ear indefinitely. These changes in the bone are probably due to more than the mere partial closing off of the attic region by adhesive bands, referred to earlier. Tuberculosis, syphilis, diabetes, or one of the other dyscrasias can contribute materially to these bony changes. In any event to practice otology successfully, one must be able to diagnose these changes when present from the nature of the discharge, including the characteristic gritty particles, the necrotic odor, the presence and location of granulation polyps; besides, locate the source of the discharge and the extent of the involvement. Furthermore, the diagnosis should include a knowledge of the particular dyscrasia when present, which is favoring the bone involvement. In

short, one should be able to visualize the changes which have occurred in the attic, including the degree of extension; whether the tegmen tympanum is intact or not, and if not, whether the dura is involved and how intensively and extensively, whether or not the soft membranes are involved along with the dura, etc. Furthermore, one should know whether the dyscrasia is manifesting itself locally, or is making itself felt generally. An instructive case of severe suppuration can be recalled in which one might readily have attributed the local changes to syphilis because of the very definitely plus Wassermann findings; whereas, in fact, the local changes were not essentially syphilitic, but were primarily pyogenic and made worse by the general anemia and impoverishment of health because of the presence of widespread luetic infection of the acquired form. It is common knowledge that in the congenital form of syphilis the individual is not only more susceptible to pyogenic infections of all kinds, but in the presence of a pyogenic infection the destruction is prone to be more extensive.

The presence of polyps anywhere in the middle ear spaces may act to interfere with drainage and ventilation. Therefore, the diagnosis should include a knowledge of their presence, their character, the site from which they spring, since all this is important in the consideration of the treatment. It may be mentioned that their very presence may interfere materially with the examination of the case, when they must be removed before we can proceed further. To show how they can interfere with the examination and obscure the findings, I will mention but one of several cases of the kind of which I know: Three weeks ago a graduate student sent me a four-page description of a case which he recently examined and operated. The patient had been suffering from some dizziness and headache. He did not have a turning stool so did not make a turning test. He tried the caloric test and found it negative, and was inclined to operate the labyrinth because of what he thought was a dead labyrinth. Fortunately, he did not operate the labyrinth, and after the removal of the polyps the labyrinth was found to react quite lively to cold water.

Again, where polyps obstruct the drainage from a recess one must not be too ready to remove them forcefully. We should first determine whether it is a granulation or fibrous polyp. If granulative polyp it may be in the location of some dead bone and its removal might possibly open up one of the vital structures. Every now and then a death results from complications arising from such an accident. It would be far better to operate such a case radically rather than to attempt the more conservative method of removal of the polyp with a snare.

While on the subject of aural polyps it might be well to refer briefly to a favorite method of

conservative treatment which has served me well in a few cases of chronic middle ear suppuration in which the patient refused the generally more satisfactory method of treatment, namely, the radical mastoid operation. Believing that all infections improve in proportion to the drainage and ventilation afforded, I adopted, long ago, the method of shrinking the polyps and the mucous membrane about them with strong cocaine solution instilled into the ear; and after obtaining the maximum amount of shrinkage, silver nitrate was introduced in the form of a bead in the case of the larger and more obstructing polyps, and in the form of solutions in the case of the flatter and more sessile ones. The less elevated the polyp the weaker the silver solution used. In some cases the strength of the solution was not more than two per cent. The action of the stronger silver preparations was generally controlled with salt solution. In a few cases the results have been very satisfactory.

To know just what form of treatment will bring satisfactory results in one case and not in another presupposes a knowledge of the location and character of the lesion and its amenability to a particular form of treatment, and this knowledge is included in the diagnosis in the full meaning of the term.

The general or extra aural condition of the patient needs to be well known to complete the diagnosis of a case of chronic middle ear suppuration.

When referring to the local conditions the dyscrasias were incidentally referred to. Although they hold a very important position in the diagnosis of supposedly local conditions, it will be impossible in a paper such as this to make more than a passing reference to them. We, as otologists, can bear witness to the fact that anything which depreciates the general health of the body must operate detrimentally on each separate part. For instance, a severe tonsillar infection, beginning as it does as a purely local affair, can produce a profound nephritis which in turn permits of the surcharging of the blood stream with waste products that impair the normal recuperative power of the body in all its parts, including the suppurating middle ear. This is the common action of all toxins of endogenous as well as exogenous origin. All the general diseases of the body have associated with them a toxemia, otherwise they could not be in the class of general diseases. Again, toxemias inhibit the recuperative power of the tissues in proportion to the amount of the toxin present in the blood and the intensity of its poisonous effects.

As a result of the more recent discoveries concerning the action of ultra violet light, it has been definitely determined that the development of tuberculosis of the lungs, the middle ear, or of any other part of the body is favored by the absence of light, and conversely the successful treatment

of this class of cases depends largely upon the freest exposure to light. The time has arrived when some form of ultra violet light therapy is essential to the successful treatment of a certain group of obstinate cases. To be able to tell just which cases are best suited to this form of treatment, or need it most, is a problem that is distinctly one of diagnosis.

The matter of diet has been one of the recognized importance for many years. All text books have referred to it as far back as can be recalled. More recently, however, the subject has been investigated scientifically. The observations of Dr. L. W. Dean and his co-worker, Dr. Amy Daniels, is worth mentioning. Quoting from a paper by Dean that appeared in the proceedings of the *American Academy of Ophthalmology and Otolaryngology* for 1923, page 269: "The second most important thing in the treatment of paranasal sinus disease in infants and young children is diet." Dr. Amy Daniels, the research dietician in the Department of Pediatrics in the University of Iowa, has expressed her opinion as follows: "We have observed that animals fed diets quite lacking in the so-called fat soluble vitamins (Vitamin A) are subject to paranasal sinus infections, infections of the middle ear, a condition which precedes the eye manifestations—xerophthalmia—characteristic of animals fed low in this vitamin. In such animals, the addition of substances, butter fat, cod liver oil, leafy vegetables, etc., which are rich in vitamin A, corrects the condition if dietary therapeutics are inaugurated in time." To inquire into the patient's diet and determine the extent to which it is faulty is as truly diagnostic as otoscopy or anything else that we may do in our efforts to obtain a full knowledge of the patient's ailment. The subject of diagnosis is one of the most important in the practice of medicine. It includes the etiology. It also serves as the guide to the treatment. It must undergo revision from time to time to keep pace with each new discovery.

DISCUSSION

W. S. TOMLIN (Indianapolis): It has long ago occurred to me that diagnosis must be the beginning of every successful attempt at treatment. You might as well attempt to sail the uncharted seas without a compass as to proceed without a diagnosis, and as Dr. Mackenzie has told us, a diagnosis is not final. Your first diagnosis must always be tentative, and you must be willing to change it as conditions change; you must be willing to be guided by additional information as the progress of the case continues.

I shall not attempt in any way to add to the comprehensive outline the doctor has given and the methods of arriving at a diagnosis of suppuration of the middle ear. We are inclined in these most serious conditions to attribute most serious causes, but the essayist has cautioned us

in a general way concerning this—that in a long continued suppuration of the middle ear the most copious discharge and the worst odor may not at all indicate that it is a deep grade of pathology; it may come from more or less minor conditions which when cleared up will clear up the case. He mentions especially the adhesive bands. Personally, I recall several cases where it seemed to me that operative procedure, a radical mastoid, must be instituted promptly on account of long continued suppuration, bad odor and discharge. Sometimes the patient was kinder to himself than I was inclined to be to him, because he would demur against the immediate operation and would ask or even demand local treatment. Some of these cases I was surprised to see cleared up under local application, and by using methods to destroy these bands, thus providing better drainage from some portion of a suppurative cavity, and some of these cases that seemed to be very virulent did recover.

JOSEPH D. HEITGER (Louisville): I can concur with what Dr. Tomlin has said, that diagnosis is the important thing in these cases. Unfortunately, in a great many cases, with all of our diagnostic methods we cannot pick out just the best thing to be done for the individual case, or at least the best thing of which we know.

I want to speak particularly of the differentiation in the treatment of nasal polyps and aural polyps. It is very good practice with a nasal polyp, if you can get hold of it with a snare, to jerk it out. That is about the worst thing you can do with an aural polyp. You might take a part of the wall of the labyrinth out, and you may get meningitis and exodus of the patient. I am an advocate of the gradual removal of these things, and gentleness and slowness is to be emphasized.

In regard to labyrinth examination, the thing that Dr. Mackenzie has given us, and for which I wish to thank him, is the method of differential diagnosis between neuritis of the eighth nerve and a labyrinth condition, by the use of his galvanic technique.

In regard to the association of infections of the nose and ear, an interesting thing was brought out a few years ago by Dr. Bodkin, an Englishman, who recorded a series of sixty-five mastoid operations in which there was a high percentage of latent infection of the maxillary antrum. In the acute cases it ran about forty per cent and a little bit higher in the chronic cases. I have not seen anything in the literature to verify that, but his figures make us realize that undoubtedly a great many of these infections are associated, and as Bodkin points out, the same organism was found in both cases, and it was a question whether or not it might have been the original source of infections.

ALBERT E. BULSON, JR., (Fort Wayne): I think that a great many chronic middle ear sup-

purations are kept up as a result of lack of ventilation and drainage. Retained secretion, plus the plugging of the external auditory canal with cotton, favors the continuation of infection in many cases. I am not very partial to the use of suction, though I have used it occasionally for years. On the other hand, I use the eustachian catheter in nearly all cases of chronic middle ear suppuration after the middle ear has been cleaned as thoroughly as possible by either douching or carefully wiping with sterile cotton; and I have seen some rather miraculous results follow the use of some of the dyes, notably five per cent alcoholic mercurochrome solution blown through the catheter until it appears in the external auditory canal. Alcohol has an exceedingly beneficial effect in the treatment of granulation polyps as well as retarding pyogenic growth. I have seen many cases of chronic middle ear suppuration clear up under the use of full strength alcohol benzoine solution blown through the catheter or forced into every nook and crevice of the middle ear cavity by churning with the tragus after filling the external auditory canal with the solution. Not a few of these cases were ready for a radical operation because the disease had resisted all other measures, and such experiences have led me to discourage radical operations until after resort to exhaustive investigation and treatment of the case as outlined.

GEORGE F. KEIPER (Lafayette): In the diagnosis of these cases of course the thing that attracts our attention is pus. This should be thoroughly examined, both grossly and microscopically. We should also keep in mind that there may be necrosis, but of course the odor tells us that. The location of the perforation is also an important point to note in the diagnosis of these cases, as well as how much membrane is destroyed and the condition of the middle ear. There is a solution that is valuable that is not much used by otologists, and that is Callison's solution, consisting of:

- 15 gr. carbolic acid
- 15 drops tincture of iodine
- 4 drams alcohol
- 4 drams water

making a one-ounce solution.

After the ear is thoroughly cleaned out and dried—use the suction apparatus—have the patient lie on a couch or on the table with the affected ear up and fill the ear with that solution, forcing it into the middle ear by compressing the tragus. Sometimes you will get a labyrinth reaction, but it must go into the middle ear. If the tube is patent some may drain into the nasopharynx, and some young patients tell me that they like the treatment because the taste reminds them of pre-Volstead days. Again there are cases in which no treatment is of avail except the radical mastoid operation.

GEORGE W. MACKENZIE (closing): In this infection there are three things to be thought of. One is the ventilation of the infected area, the second is diet, and the third is light. The reason we do not get 100 per cent success in mastoid operations and operations on the sinuses is because we do not always get to the last remotely hidden space. You all have seen cases operated by the other fellow, in which a cure did not result. When we have them x-rayed we frequently find cells left behind which were not opened and drained thoroughly at the time of the operation. We then proceed to operate and remove or drain these cells, and the case frequently gets well. If you follow that same case and x-ray it some time subsequent to this second operation you may find that even you or I have left some cells behind. In some cases these remote cells reach clear to the anterior tip of the petrous bone, where it is impossible to get the very last one. The next best thing is to try to shrink the parts and get to them by our treatment as best we can.

Let me cite a case in which persistent effort to reach remote areas of infection brought about a favorable result in an apparently unfavorable case for conservative treatment. The patient was an ear specialist in Philadelphia who came with an acute mastoiditis. He suspected the true nature of his ailment and suggested that no time be wasted in case I thought an operation necessary. I did in his case something which I have done many times since, and with very good results but not invariably so. I shrunk the eustachian tube orifice with strong cocaine solution. This was followed with numerous inflations. Then I waited a while and inflated again, a dozen or more times, and with almost every inflation some pus came out of the perforation of the drum head, and before we were through we got a teaspoonful of pus or more. His trouble terminated promptly and in three days he was quite well and the perforation practically healed. I have tried this treatment many times since, using plenty of air, and I have had excellent results in the majority of cases. Once in a while I was able to abort mastoid empyema and thus avoid operation.

I believe that oxygen is perhaps the most important thing in the treatment of pyogenic conditions. The difficulty is in getting the oxygen to the site of the infection. If one puts cotton into the canal of a discharging ear the condition grows worse because we block the ventilation.

A word about granulation polyps. It is necessary to know the nature of the polyps and from whence they spring. I am reminded of a case of granulation polyps when I was an assistant in Politzer's clinic. There was a male patient who had been in the ward about a week waiting for his turn to be operated. He became very impatient and Professor Alexander told me to try to satisfy him by removing a polyp. It practically filled the external canal. I put a snare around it, when he

suddenly sprung a terrific attack of vertigo, with wide excursion nystagmus to the left (affected) side. He straightened out his arms and cried out in terror. I took off the snare and was content not to remove the polyp. I acquainted Alexander with what had happened, and he used the patient for demonstration of the fistula test before the class. The patient was operated within the next hour. At the operation this granulation polyp was found to be attached to the prominence of the external semi-circular canal covering a fistulous opening in the canal. It is generally known that patients will present no symptoms until something displaces the piece of dead bone to which the polyp is attached.

We should be careful about the removal of granulation polyps since they mean involvement of the bone. On the other hand, fibrous polyps do not. It is possible to have two kinds of polyps in the same ear. Dead bone in the attic can cause granulation polyps, while the dripping of pus from the attic causes fibrous polyps to develop on the promontory.

SOME FUNDAMENTAL POINTS IN THE DIAGNOSIS AND TREATMENT OF ETHMOID DISEASE*

JOSEPH D. HEITGER, M.D.,
LOUISVILLE, KENTUCKY

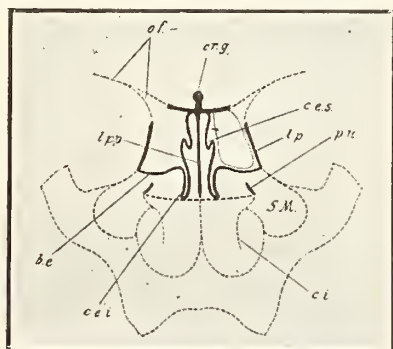
Morphological variation is so frequently encountered in dealing with the ethmoid labyrinth that the establishment of a normal anatomic type becomes a difficult task. In the determination and delineation of anatomic conformations to the established normal type, embryological and anatomical knowledge can be of great assistance in orientation, diagnosis and treatment.

The ethmoid bone is composed of three chief parts, the lamina cribrosa, the lamina perpendicularis, and the ethmoid labyrinth. The latter forms a large part of the outer nasal wall. In describing the lateral nasal wall Hajek in his classic "The Pathology and Therapy of the Inflammatory Diseases of the Accessory Sinuses of the Nose" builds it successively until the large hiatus maxillaris communicating with the antrum is replaced by the ostium maxillare, the placing of the ethmoid being the last step in the procedure. Just how he accomplishes this is developed in the illustrations and lantern slides.

In association with this conception of the structure of the lateral nasal wall, Hajek describes the development architecture and topography of the ethmoid labyrinth, thus affording an excellent visualization of the anatomy and a safe, sane orientation during surgical attack on this complex structure. The ethmoid first develops as a number of so-called grundlamellan and interturbinalen gangen. The ends of the grundlamellen

*Presented before the Section on Ophthalmology and Otolaryngology of the Indiana State Medical Association at the Marion Session, September, 1925.

extend into the nasal fossa as the uncinate process, bulla, middle, superior and supreme turbinates, etc. The interturbinalen gangen appear between the lamellen and exist as the infundibulum, the meati, bulla cells, anterior, middle and posterior ethmoid cells and sphenoethmoidal recess, etc. These lamellen extend through the ethmoid outward to the lamina papyracea, upward to the lamina cribrosa and foveolae ethmoidales which form the roof of the ethmoid, forward to the frontal bone, and inward to the inner wall of the ethmoid. The general architecture of the ethmoid labyrinth is altered by extension too far forward or backward of these lamellen themselves. These



Scheme of architecture of the ethmoid.
l.p.—Lamina papyracea; l.pp.—Lamina perpendicularis;
cr.g.—Crista Galli; c.e.i.—Concha ethmoidalis inferior;
c.e.s.—Concha ethmoidalis superior; c.i.—Concha inferior;
b.e.—Bulla ethmoidalis; p.u.—processus uncinatus; of.—Os frontale.

lamellen vary in number from five to six and in some instances there may be additional ones produced due to a variation by a longitudinal splitting of individual lamellen.

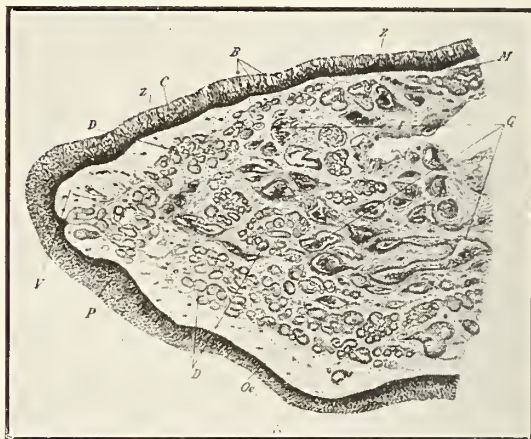
To produce a simple visualization of this scheme, draw a horizontal line corresponding to the plane of the lamina cribrosa or foveolae ethmoidales, the roof of the ethmoid, and drop five parallel lines bent slightly to form an angle or consider them as representing a section of an arc of a circle. Anomalous developments occur when the individual lamellen extend too far forward or too far backward, when the lamellen are defective, or when they undergo a longitudinal splitting. The first and second lamellen are incomplete, the second, the bulla lamella, is often defective, the fourth and fifth as a rule complete. The ethmoidal cells are produced by the development in the interturbinal passages or gangen of septa, complete or incomplete, producing real cells or partially complete ones. The openings of the various cells determine their classification into anterior, middle or posterior cells.

The nasal boundaries are more variable, the main variations occurring anteriorly against the frontal sinus; in the relations of the anterior ethmoid to the hiatus and infundibulum; in the extension of cells into the middle turbinate,

and in the relations of the infundibular cells. If the bulla lamella is defective above and fails to reach the roof of the ethmoid capsule, the frontal sinus opens into the infundibulum and the bulla cells. If it does not reach the median wall, it fuses with the uncinate process and produces variations in bulla and infundibular cells. By extending forward into the frontal sinus, it may produce the so-called "bulla frontalis". It may be situated farther backward than normal, permitting an unusual development of infundibular cells to the extent that the infundibulum may be entirely surrounded by cells.

Many other types of variations occur, and these morphological changes emphasize the inestimable value of their recognition in making subsequent deductions as to the probable origin of pathologic secretions, thus enabling one with greater confidence and security to carry out the dictum of Hajek,—"after finding pus follow it to its source."

Zuckerkindl was the first to show that on the turbinate bodies firm, tight tissue is present, like that on the palm of the hand. The mucous membrane on the convexity and lower edge of the middle turbinate is much firmer and tighter than that on the concavity. There exists a looser tissue in the middle meatus, on the covering of the ethmoid capsule and on the uncinate process, than on the convexity of the middle turbinate. This has an important bearing on the pathology of the ethmoid.



Section of Normal Inferior Turbinate. Z—Cylindrical epithelium; P—Pavement epithelium; B—Goblet cells; V—Anterior pole; Oe—Loose edematous tissue; M—Bowman's membrane; D—Glands; G—Blood spaces.

Pathological changes of the ethmoid involve the mucous membrane and the bone. According to Hajek the middle turbinate forms an anatomical entity or "involucrum" as it is difficult to differentiate the layers of mucous membrane, connective tissue, periosteum and bone. He classifies the inflammatory changes into: (1) Surface inflammation involving the superficial layers of the

mucous membrane; (2) deep inflammation affecting the soft parts between the bony trabeculae, and (3) bone involvement type affecting the whole "involucrum" including mucous membrane, periosteum, bone and medullary substance. Changes in this latter form include appositional or hyperplastic osteitis with the development of a new



Frontal section of anterior end of Middle Turbinate. Cy—Cylindrical epithelium; B—Goblet cells; M—Hyaline basal membrane; D—Glands; G—Capillaries; L—Round cells; C—Cavernous layer; F—Periosteal layer; K—Bone; Mr—Medullary spaces.

osteoid tissue, a result of overnutrition from congestion, staining red to orange-red with haemalaun-eosin—(old bone stains blue),—and rarefying osteitis resulting from undernutrition from constriction of blood vessels by contracting connective tissue. Neither appositional nor rarefying osteitis has anything to do with polyp formation, which is the typical product of chronic inflammation of the ethmoid.

Hajek has repeatedly observed that inflammation of the ethmoid begins as a surface process and extends into the deeper tissues. At no time has the reverse process been observed.

Polyp formation is an expression of inflammation of the mucous membrane, and has nothing to do with the involvement of the medullary substance or bone. All are the result of a general inflammatory affection of the ethmoid. Where the mucous membrane is thin the ethmoid reacts to chronic inflammation by polyposis, and where it is thick, such as on the convexity and lower edge of the middle turbinate, a compact firmer hypertrophy results.

The origins of polypi are around the openings leading into the sinuses. If the polyp arises as an isolated product it may be removed with its bony insertion and a cure usually results. These isolated polypi are not seen so often as those arising from inside the ethmoid cells. As long as

the inflammation remains in the sinus membrane it is diffuse in character. If stasis occurs at the hiatus, edema increases with the growth and kinking occurs with the development of the polyp. The more the polyp hangs down the more the veins are kinked, the greater the edema becomes, with a resulting growth in size of the polyp. When such a polyp is cut off the edematous swelling inside the cell is not severed and recurrence results. Such recurrence speaks for polyposis of the ethmoid cells.

There exist one purulent and three non-purulent causes of recurrence of ethmoidal polypi. The former results from pus in the sinus irritating the lining membrane and producing polypi at the opening of the sinus. Among the non-purulent causes: First, the middle turbinate may exert a constricting effect on superficial polypi on the ethmoidal capsule,—external ethmoiditis; second, polypi may recur from the membrane inside the sinuses as already described; and, finally, they may recur even after the membrane is removed as a result of involvement of the bony trabeculae and medullary substance beyond the mucous membrane. Polypi in the middle meatus bear the same relationship to catarrhal disease of the sinuses emptying therein,—ethmoid, frontal and antrum,—as the appearance of pus in this region to suppurative disease of this group of sinuses, as pointed out by O. Hirsch.

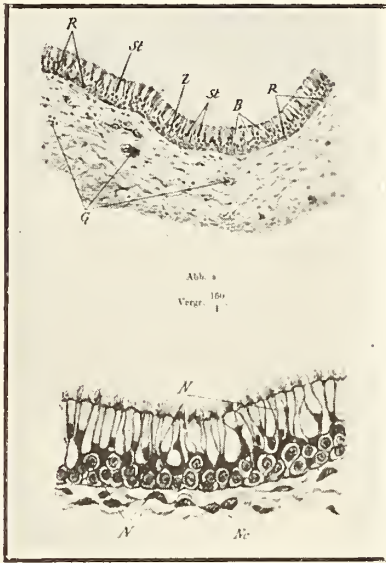
In establishing a diagnosis of nasal sinus disease we should consider such important factors as: the clinical examination, study of roentgenograms, transillumination, the history, and symptoms. We



Section Posterior end of Superior Turbinate. Cy—Ciliated cylindrical epithelium; R—Olfactory cells; K—Bone; Dr—Glands; P—Periosteal layer; Bm—Basal membrane; C—Corpus cavernosum.

should attempt to determine the presence or absence of sinus disease, its character, location and clinical importance; and we must further differentiate between a diagnosis of sinus disease, and indications for treatment or operation.

As applied to ethmoid involvement this general outline carries certain restrictions and limitations, so that we must depend largely upon the clinical examination and the study of roentgenograms for diagnosis. Conditioned by its position and structure, involvement of the ethmoid is associated with involvement of the other nasal sinuses, the anterior and middle ethmoid cells being linked with the



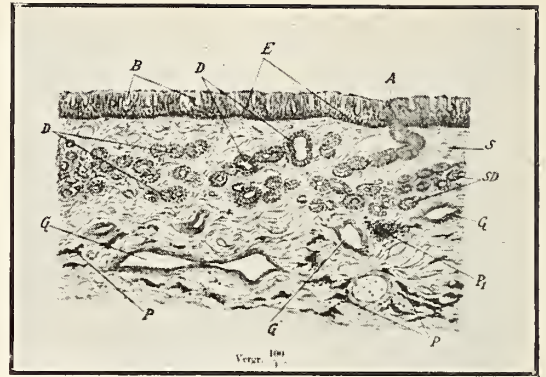
(a) Section of normal ethmoid mucous membrane. R—Olfactory cells; St—Supporting cells; B—Goblet cells; Z—High cylindrical epithelium.
(b) Normal olfactory region. Higher magnification showing ganglion cell character of the olfactory cells. Nc—Nucleoli; N—Nuclei.

antrum and frontal sinus, and the posterior ethmoid cells with the sphenoid.

Ethmoid paranasal cell disease may be classified into non-suppurative and suppurative, with the characteristic pathology of the ethmoid-polyposis occurring in both types. In the non-suppurative type our reliance must depend upon anterior and median rhinoscopy, with the use of the probe as regards the anterior and middle ethmoid cells, and posterior rhinoscopy with proper illumination as regards the posterior ethmoid.

Sluder has described certain minute changes in the mucous membrane and surrounding structures of the sphenoethmoidal district visible by posterior rhinoscopy under proper illumination (the arc lamp) which are indicative of non-suppurative disease of the posterior group of nasal sinuses.

Suppurative disease of the ethmoid must be diagnosed by elimination. If pus appears in the middle meatus its source from the antrum and frontal sinus must be eliminated before one can



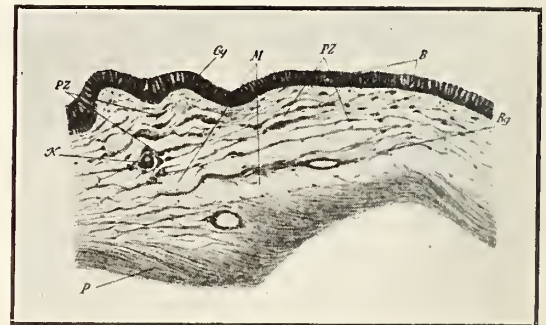
Normal maxillary antrum—mucous membrane. B—Goblet cells; S—Loose connective tissue layer; A—Opening of gland; SD—Serous glands; D—Glandular layer mostly serous glands; G—Blood vessels; P—Pigment; P—Area of diffuse pigmentation.

establish involvement of the ethmoid. Likewise with the appearance of pus in the olfactory fissure the sphenoid sinus must be eliminated first as its source. We must further consider the wiping action of the soft palate which by transferring secretion to different parts of the epipharynx may confuse the diagnosis. For the details of this action I would refer you to Sluder's reprints.

Sounding and washing of the antrum, frontal and sphenoid sinuses, with the proper sequence and interpretation of the results obtained after the method of Hajek, offer us the best method of approach in establishing by elimination a diagnosis of suppurative disease of the ethmoid.

We may safely depend upon the x-ray to outline the shape and size of the nasal sinuses; to determine their presence or absence; and give us an idea of the stage of their development and pneumatization. It may mislead us in attempting to determine the character of disease involving the nasal sinuses.

Closed empyema of the ethmoid is suggested by abnormal dilatation of the ethmoid and diagnosed by exploration.



Normal mucous membrane of sphenoid sinus. Cy—Several layered epithelium; B—Goblet cells; Bg—Loose connective tissue layer; M—Meshes formed by edema; F—Periosteal layer; PZ—Pigment cells; K—Calcium concretion.

After establishing a diagnosis of ethmoid disease, indications for treatment are in order. If the disease is acute local treatment will bring about a return to normal unless certain anatomical conditions are present which interfere with proper ventilation and drainage. In the milder cases correction of such anatomical hindrances, such as a deviated septum coupled with infraction of the middle turbinate, may bring about a restitution to normal. Often the antrum and frontal are also involved. If the antrum disease is corrected the ethmoid and frontal may heal spontaneously. Circumscribed empyema of the ethmoid is the rule, and total involvement is the exception; and the anterior and middle cells are more often diseased than the posterior.

Conservative repeated surgical attacks in the average case gives better end-results than an attempt to remove the whole ethmoid at one sitting. Most patients can be relieved of their symptoms in a year or so by repeated operations and treatment of the ethmoid. Certain morphological and pathological variations preclude a cure by any means, so that in these cases we must be satisfied with a half-way result.

In the treatment of all anterior and middle ethmoid involvements the maxillary antrum should be the first point of attack, and it should be eliminated as a casual and continuance factor in every case. The writer has seen a number of cases where neglect of this rule has resulted in failure to cure ethmoid disease, with a subsequent healing following its observance.

For further details regarding surgical attack upon the ethmoid, the writer would refer you to the classical texts of Sluder and Hajek, where indications for treatment are planned along lines of known and proved anatomical and pathological knowledge.

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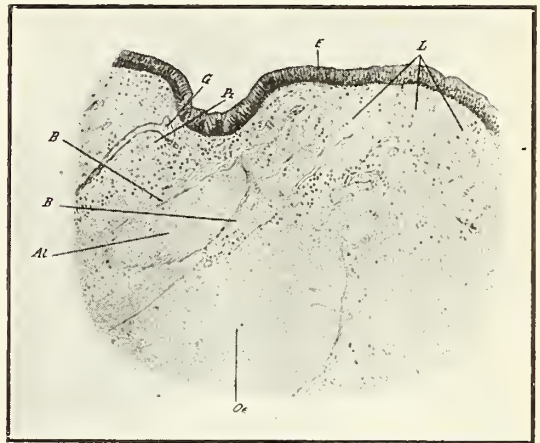
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DISCUSSION

ALBERT E. BULSON, JR., (Fort Wayne): I desire to compliment Dr. Heitger for his presentation of the subject in such a lucid manner. There is nothing in our work that offers such a complicated anatomy as the ethmoid region with its variations, and there is no region upon which we are called to use operative procedures that is any more dangerous in its possibilities for harm.

Likewise it is a region in which operative procedures frequently are disappointing, and the reason for this, as expressed by Dr. Heitger, is that there are altogether too many operators who are not sufficiently familiar with the anatomical structure and the relationship of the various parts that make up the ethmoid region. They also are unfamiliar with the methods of accurate diagnosis.

Many rhinologists are too radical in their ethmoid surgery, with bad after-results, and it is a knowledge of those cases that discourages many of the younger rhinologists as well as the patients. In the last thirty-five years I have seen a large number of cases that have been operated for ethmoid disease, or perhaps a pansinusitis, with disappointing results, oftentimes with results that make the patient really worse than before. Some of these patients have been in the hands of



Edematous mucous membrane of the middle turbinate. E—Intact epithelium; G—Blood vessels; B—Connective tissue fibres; L—Lymphocytes; Pz—Plasma cells; Oe—Edema; Al—Alveolar-like spaces.

men recognized as being leaders in our profession. I am pleased to note that the pendulum seems to be swinging the other way, and right now there is a tendency toward conservatism, and I believe that the man who attempts ethmoid surgery with the idea of securing adequate drainage as well as ventilation without mutilation of so much tissue is the safest one to follow.

Here are two or three points in Dr. Heitger's paper that may be emphasized, and one of them is the fact that the discharge from the frontal sinus oftentimes is in the bulla as well as in the infundibulum, and it is possible that in some of the cases in which we have failed to get results our failure is due to the fact that we have not broken down the bulla and permitted proper drainage.

Roentgenograms offer invaluable aid in diagnosis, but there is nothing so disappointing as a roentgenogram made by an operator who is not especially trained for that particular work, and who is unable to interpret his work intelligently. The roentgenologist not only should possess a

good machine with high penetrating power, but be thoroughly familiar with its use, and especially familiar with the proper interpretation of sinus pictures. Furthermore, an analysis of the case must take into consideration the clinical manifestations along with the x-ray findings. Transillumination is suggestive in many cases but as often is disappointing if not really misleading. At best its value is only corroborative when associated with other findings.

The point has been made that the presence of polyps in the nose is a fairly good indication of a diseased ethmoid labyrinth, but we must not forget that occasionally a single polyp is a fairly superficial abnormality, the simple removal of which will end in a cure. However, it is well to remember that a single polyp may be the only one showing in the nose while at the same time a diseased labyrinth exists with perhaps numerous

polyps that as yet have not presented themselves in the nares.

In considering suppurative diseases of the ethmoid, I am quite in sympathy with the teaching of some of the rhinologists who now are advocating ventilation and drainage without exenteration. I have had many satisfactory results from the fracturing of the middle turbinate in order to ventilate and drain the ethmoid region as well as the frontal sinus, and it is only occasionally that I find it necessary to remove the middle turbinate. It is quite true that some of these cases will require some radical operative attention a little later, but we should not make the mistake of doing a radical operation in the beginning when a simpler one may accomplish the desired results.

The suggestion of Dr. Heitger that we must not overlook the antrum in these ethmoid cases is pertinent. Many times I have seen patients who have had adequate operative attention to secure ventilation and drainage of the ethmoid and frontal regions that fail to get well, and all because an involvement of the antrum was overlooked. It is my experience that practically all of these ethmoid cases are complicated by an involvement of the antrum and ventilation and drainage of the antrum is indicated. Furthermore, we should remember that in quite a large percentage of cases the ethmoid drains into the antrum.

Dr. Heitger has referred to the connection between the posterior ethmoid cells and the sphenoid, and I want to call attention to the fact that an operator should open the sphenoid with some hesitation in view of the possibility of injuring the optic nerve which, according to Schaefer, so often lies in the sphenoid cavity with little or no bony covering.

B. N. LINGEMAN (Crawfordsville): Sinus disease is so important, its effects are so far reaching, that it is my opinion that in the future men in our profession will specialize in this condition alone, and maybe in ethmoid disease alone. The study of sinus disease is indeed a specialty in itself.

Dr. Heitger has given us a clear and concise visualization of the anatomy and embryological developments of the ethmoid. This is of course necessary, for any one who expects to treat this condition surgically should keep the anatomical variations in mind. He has given us an outline and treatment of this condition.

In regard to the treatment of the acute cases I would like to obtain in a little more detail the best method of reducing the enormous swelling of the turbinate bones as we sometimes find in this condition. I have tried packing and spraying with adrenalin and cocaine solution, I have tried cauterization of the turbinates, and so forth, but nothing that I have found seems to give more than temporary relief.

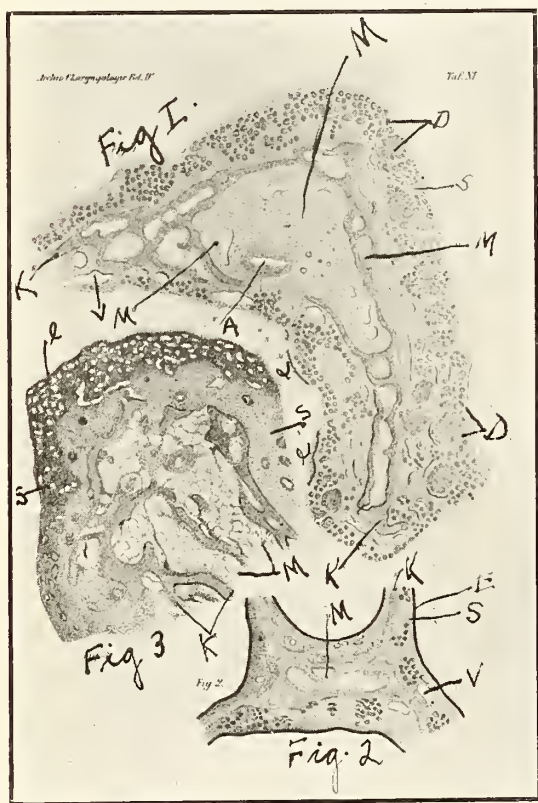


Fig. 1. Section through anterior third of normal middle turbinate. S—Mucous membrane; e—Ciliated epithelium; D—Glands; V—Veins; K—Bony skeleton; M—Medullary spaces in communication with deep layers of mucous membrane; M—Medullary space with more connective tissue connecting likewise with deep layers of mucous membrane, producing so-called "involutum;" A—Larger arteries in larger medullary spaces.

Fig. 2. Section through a part of normal ethmoid at origin of four lamellae. S—Mucous membrane; e—Ciliated epithelium; V—Veins; K—Bone; M—Fat containing medullary spaces which appear closed in this section, whereas in other sections they communicate through opening with the mucous membrane.

Fig. 3. Section through a normal uncinat process. e—Epithelium; S—Mucous membrane; K—Bony Trabeculae; M—Medullary spaces, the most of which contain fat.

* In the treatment of both acute and chronic conditions, I would like to recommend to you the use of nasal tampons as described by Dr. Dowling, of Albany, New York, in the June *Laryngoscope*. This has been the best non-surgical treatment that I have found so far.

I like Dr. Heitger's idea of conservative repeated surgical attacks in the treatment of the chronic cases. As much of the middle turbinate bone should be left as is possible, since it is much safer than removing the cells to keep to the lateral side of the attachments of this bone, because the cribiform plate is not likely to be injured. The Weil forceps is the best instrument that I have found with which to remove these cells.

As to results in these cases, I have seen some very good results by simply straightening the nasal septum and removing the ethmoid cells which seem to be diseased.

VIRGIL H. MOON (Indianapolis): It would be of great interest to those in this specialty, as in other specialties, to hear what experience Dr. Heitger has had with heliotherapy, a very recent means of attacking chronic infection of the paranasal sinuses. I wish, in his closing remarks, he might give us briefly such experiences as might be of interest to us.

E. C. DAVIS (Muncie): If it is not too much of a digression from the subject, I would like to ask what Dr. Heitger might have to say about the relationship of ethmoiditis to asthma.

CHARLES J. ADAMS (Kokomo): Personally, I have been vitally interested in the ethmoid region, not only in my practice, but because certain famous men have experimented on my nose, much to my dissatisfaction. From the time I was nineteen until now I have had my turbinates removed, sphenoidal sinuses gone into. Ballenger cleaned out all my ethmoids, and I am thankful to be still here. I have formed some very positive opinions regarding ethmoid cases. In the first place, I think we should go slow in operating on the ethmoids—make haste slowly. If it is possible to leave the middle turbinate I think it should be left. Take away what is absolutely necessary if you have to go in. If you have suppuration in the anterior ethmoidal cells I do not think it is absolutely necessary to take out the whole middle turbinate. You can merely make a slot in the anterior end. There is no question but what the middle turbinate acts as a buffer. I am subject to acute attacks of frontal sinusitis, and I think if I had my middle turbinate I would not have quite so many attacks.

The instruments that are used today and the various methods of using them in operating on the ethmoid I think are wrong. Where it is possible to use a biting instrument it should be done instead of using a curette. When it is possible to use biting forceps the outer parts of the ethmoid cells remain and also the mucous tissue lining the

cells. This is better than scar tissue, even if the mucous tissue is diseased. Another feature in the biting forceps proposition is that when you attack the ethmoid cells anteriorly and bite the cells out you do not have a contraction of the fronto-nasal duct. That is serious, because if it contracts you must open it.

GEORGE F. KEIPER (Lafayette): I want to call attention to one point in reference to the antrum in its relationship to the ethmoid cells. Logan Turner demonstrated years ago that the ethmoid cells sometimes drain into the antrum, hence in disease of the ethmoid we may have an antrum full of pus which is bound to give us trouble if we overlook the antrum in our zeal to cure the ethmoid disease.

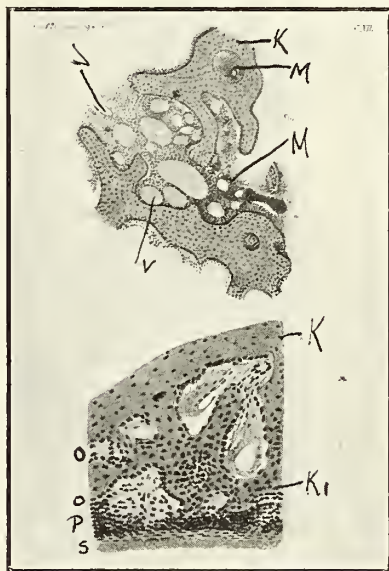


Fig. 4. Deep inflammation of a hypertrophic middle turbinate. The medullary spaces are filled with a dense cell infiltration. Bone is normal. K—Bone; M—Medullary spaces, cell infiltrated; V—Veins.

Fig. 5. Hyperplasia of the bone in association with a deeply invading inflammation of a markedly hypertrophic, vesicular degenerated middle turbinate. S—Part of endometous, cell infiltrated surface of mucous membrane opposite the middle meatus; P—Cell infiltrated swollen periosteum; O—Osteoblasts; K—Old bone; K¹—New bone.

Transillumination is worth while as an aid in diagnosis, but it only gives us information about four sinuses—the frontal and maxillary—and none at all as to the ethmoid region and the ethmoid, where it is necessary to resort to the x-ray. Moreover, transillumination is sometimes quite delusive. We may think we have a dark antrum full of pus, but when we open the antrum we find no pus at all, and vice versa. So far as the antrum is concerned I think it is best after having cocaineized the parts, especially the sphenopalatine ganglion, to simply make a needle puncture and wash out to determine whether the antrum is clear or not, before resorting to x-ray plates.

In clearing up the ethmoid cells a great many have expressed fear with reference to perforation of the lamina cribrosa, thus producing meningitis. If we curette with such instruments as the Mosher or the Sluder modified knife, working always downward, there is not so much danger. The punch forcep is valuable also after infracting the middle turbinate or amputating a portion of it. Sometimes we will transfer an infection from the diseased ethmoid cells to those that are not infected. There is danger in all of this work, and each case must be handled carefully with a full knowledge of the anatomy of the parts as well as the pathology.

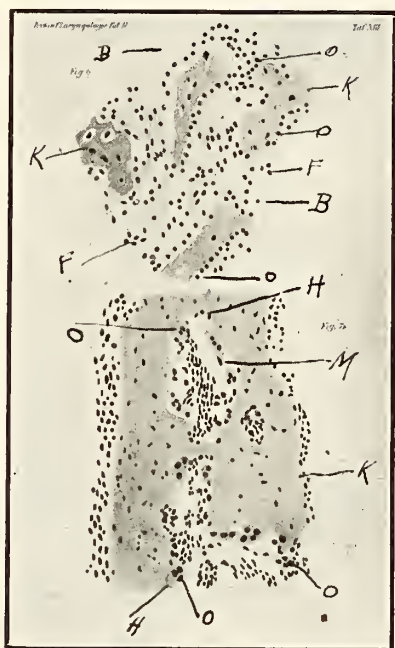


Fig. 6. Hyperplasia of the bone and markedly swollen peristeam of a markedly hypertrophic, deeply inflamed middle turbinate. B—Fibrous layer in the peristeam; F—Swollen fibroblasts; O—Osteoblasts. K—New bone.

Fig. 7. Rarefying osteitis of several bony trabeculae of the middle turbinate associated with a deep inflammation. K—Bone; M—Medullary space; H—Howship's lacunae; O—Giant cell (osteoblast).

Let us not forget the value of suction in the treatment of these cases. Of course all polyps must be eliminated.

C. NORMAN HOWARD (Warsaw): I think the discussion of Dr. Heitger's interesting paper has not brought out sufficiently the danger in ethmoid operations. I mean danger to life. Last winter I had a patient die of meningitis following an ethmoid operation.

In the January, 1925, issue of the *Archives of Otolaryngology*, Dr. John A. Pratt tells of the questionnaire he sent to 165 leading rhinologists of North America in regard to deaths "following surgery in the ethmoidal region". He says that fifty-two of the 108 answers received reported eighty deaths from meningitis in their immediate

practice. Dr. Pratt's belief is that the extension of the infection is probably along the olfactory nerves, and warns against disturbing them, quoting Dr. J. Parsons Schaefer to show that "the subdural space directly communicates with the perineural spaces of the olfactory nerve fila."

Whether Dr. Pratt's thought as to the path of infection is correct or not, the fact remains that deaths from meningitis can and do occasionally occur after ethmoid surgery.

JOHN W. CARMACK (Indianapolis): When I get a poor result, or when I do not get the result I expect to get, I like to feel that it is my own fault, that I was lacking either in knowledge, or in ability, or that I hurried along and did not give the case enough consideration. I believe that many of our mistakes and poor results are due to that. I feel that sometimes I do not get the result I expect because I have not studied the x-ray picture carefully enough, or have not given consideration enough to the transillumination, or have not looked at the mucous membrane enough times, or have not used enough elbow grease. I believe if we would all think of that a little bit more we would get better results in our ethmoid and nose work.

One of the important considerations in nose surgery and treatment of nose diseases, in addition to the fundamental thing, the anatomy, which Dr. Heitger has pointed out to us, is the function of the nose. Sometimes in selecting the kind of instruments with which to cut out the turbinate, or in deciding how much we will charge the patient for a submucous operation, we overlook some of the basic things that we should consider in doing any kind of nose work. The first thing that comes to my mind is that the mucous membrane has a very highly important function to perform, and every time you take out a piece of it you cripple the individual, and every year that the inflammatory process has gone on in that nose before you correct it or get it stopped, that individual is crippled just that much and when you figure on your cure you can only figure on that percentage of cure. With these things in mind you are not going to go into that nose and take out a turbinate or a lot of mucous membranes, or you will not cauterize and take off a big piece of tissue just because you have an instrument or a method with which you can do this.

The second fundamental thing is that these cases will get well if you can aerate and drain them, provided the condition has not gone on to a degenerative change.

It seems to me if we see that there is proper drainage, if we see to it that there is the least possible sacrifice of mucous membrane of the nose—if we combine these two things with plenty of elbow grease, we will have fewer bad results.

DANIEL W. LAYMAN (Indianapolis): One point I wish to emphasize that was brought out by Dr. Bulson and Dr. Adams, and that is to proceed

slowly with sinus surgery. I do not mean, and I do not think the doctors mean, to do an incomplete operation and let it go at that. We rather mean to repeat, or proceed with several operations if necessary, at different sittings several months or even a year apart.

Shortly after I commenced to do nasal surgery Ballenger introduced his ethmoid knife, and others advocated more or less radical operation on the ethmoid. During such an era one would have expected radical surgery from a young specialist who was trying to pick up points on surgical treatment of nasal sinus diseases; but fortunately for me two things happened which led me to lean toward conservatism. The first was that a friend of mine in the east was being treated by a New York specialist for a sinusitis. The surgeon was unusually conservative because the doctor patient demanded it. What impressed me was the fact that after a number of small operations over a period of years the patient was actually relieved of the sinus disease. The second fact was that I followed a similar conservative procedure in two cases of sinusitis,—one because the patient demanded it, and the other because the patient's constitution would not admit of anything radical. After five or six years I observed that these patients were more comfortable, freer from nasal trouble than others who came under my observation on whom a complete exenteration of the ethmoids, including the middle turbinate, had been done.

Dr. Lee Deen, of Iowa City, one of the pioneers in work on paranasal sinus diseases in children, puts climate as the most important therapeutic agent; diet, local treatment, conservative surgery and radical surgery in the order named. Radical surgery is resorted to rarely.

O. C. BREITENBACH (Columbus): In this day and age when a goodly number of otolaryngologists and rhinologists are flocking to Florida, their going would seem a paradox if any climate *per se* established immunity from sinus disease. Change of climate, not climate, by raising the vital resistance of the individual, may be and perhaps is an adjunct in tissue repair, whether this be tuberculosis or sinus disease. But we do not give enough attention to possible body dyscrasias influencing natural resistance, the essential factor in the cure of sinus pathology. The reparative process here is no different from that in other surgical fields, and as non-union and fistula formation in the abdominal wall occur in cases of low vitality, so delayed healing may occur in sinus surgery with equally unsatisfactory results as far as alleviation of symptoms is concerned.

As otolaryngologists and rhinologists we are apt to overlook constitutional disease as a basic factor in sinus pathology, forgetting that the undermining of vitality by such diseases may embody a first cause. Sinus pathology develops

in connection with many systemic conditions, among which are influenza, typhoid, and nephritis.

I do not believe it is the repeated operation or the change of climate in itself that gives us the best results, but rather the fact that during this interval while the patient is under observation his internal secretions have been stimulated and his natural resistance raised, and these are important factors in the cure. Surgery alone, by establishing drainage will relieve symptoms, but the cure of sinus disease implies more than surgical interference. Indeed, radical sinus surgery is a great disappointment, especially if the ideal of surgery is the conserving of tissue and the restoration of function.

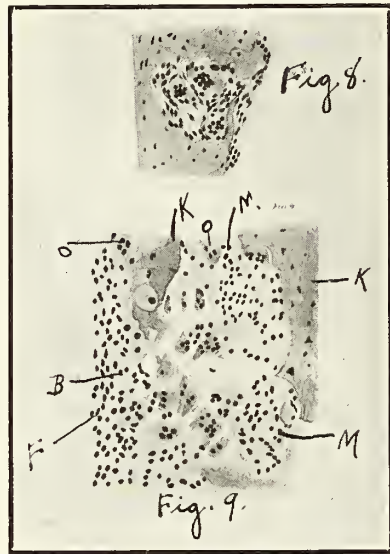


Fig. 8. From the bony substratum of a nasal polyp. In a medullary space osteoclasts are seen (rarefying osteitis).

Fig. 9. High grade resorption of bony trabeculae from the insertion of a nasal polyp (case of inverted polypt). K—Bone; M—Medullary space; B—Connective tissue; F—Fibroblasts.

FREDERICK B. BALMER (Chicago): I am in accord with the men who believe in the conservative method of ethmoid surgery. The middle turbinate should be allowed to remain if possible. If removed it leaves a crippled nose and a cavity in which crusts are likely to form.

My associate, Dr. Albert H. Andrews, and I use and advocate the use of Knight's forceps. The procedure is as follows: After shrinking we cocaine the middle turbinate region with cocaine flakes; infract the middle turbinate if necessary, then pass the Knight forcep under the middle turbinate, engaging the bulla ethmoidalis, and push the forceps in not deeper than the length of the blades; close the jaws and with a rocking, twisting motion bring out the forceps with the ethmoid cells. Then pass the upper blade into the opening thus made and the lower blade under the ethmoid floor, and crush and exenterate. This removes the floor and posterior cells of the ethmoid

labyrinth. The procedure then removes the anterior and posterior cells, excepting a few cells in the uncinate process which are frequently absent, ventilates the ethmoid and provides for drainage. Should the anterior end of the middle turbinate be bulbous and interfere with drainage or cause pressure, we crush it. We frequently pack the ethmoid region, or cavity, with ten per cent argyrol or silvol solution and allow it to remain a half hour or so. This acts germicidally and depletes the tissues. We endeavor to make a positive diagnosis of ethmoid disease, and may treat it with argyrol packs for a reasonable time. If immediate surgical intervention seems necessary, of course we do not hesitate.

D. O. KEARBY (Indianapolis): It occurs to me the point Dr. Heitger has stressed is the absolute necessity, in ethmoidal sinus work, of knowing the anatomy of the nasal accessory sinuses. In my experience it is impossible to make an absolute diagnosis of just what is happening in any of these hidden little rooms. The x-ray is an assistance; transillumination as well. A great deal I can see with my eye; some evidence I can wipe away with a probe. My final conclusion, therefore, must be based on what all of these things tell, taken in conjunction with the symptoms the patient presents. Of course if there is a lot of suppuration pouring out everywhere, it is easy enough; but in many of these cases we do not have this great amount of suppuration. Dr. Heitger's paper dealt largely with anatomy, which, I repeat, is most important.

I think emphasis should be placed upon the vascularity of the parts we are dealing with, not only the blood vessels, but the lymphatics, because many brain complications are transferred through vascular channels.

I am very sorry that Dr. Loeb is not here to recite to us the details of the excellent paper he wrote two or three years ago compiling statistics on the fatalities in nose and throat surgery. Out of 350 deaths some 120 were due to meningitis—more following ethmoid surgery than any other two operative procedures. I would like again to emphasize the necessity of knowing this anatomy.

JOSEPH D. HEITGER (closing): In regard to Dr. Bulson's statement, one very important thing in the use of the roentgenogram is its interpretation by the roentgenologist. You will see all sorts of things and you do not know what they mean, and the only way to determine that is to get a probe in the sinuses and have an x-ray taken with the probe in position. You may have to take a dozen radiographs but a metal probe will help you very materially in your interpretation. I have taken cases with three or four probes in. Use about a No. 18 to 20 gauge soft copper wire for this work.

Regarding repeated operations, no doubt a great

many of you have operated on the ethmoids and then a few days afterwards, from a few days to six weeks, you think the operated region looks worse than when you started. There is a reason for that. Whenever an operative attack is done on any part of the ethmoid region a reaction occurs which is an acute type of polyposis. It is not due to infection, but to the operative attack and will take from three to six weeks to subside. At the end of that time you can begin to look for the source of the pus.

A great many of these cases get well with ventilation and drainage. On the other hand, certain types of cases have progressed to the extent that osteoid bone has formed and there is a rarefying process coupled with a polyposis and you cannot get these cases well without operative procedure. In those cases where the infection has invaded the bone beyond the mucous membrane in the cells one must be satisfied with half-way results—they are the type of case we have on hand for two or three years. Four or five months after you have cleared things up you will see a few little polypi; take them out with biting forceps. I do not think the curette has any place in ethmoid surgery. The cutting or biting method should be used to get the tissue out.

It takes time to make a diagnosis of sinus disease. Some of these cases may require three or four weeks' study before making a diagnosis. The more you study the case before you operate, the less you will have to do afterwards, as a rule.

In regard to puncture of the antrum, a few years ago a paper was published in this country and discussed by a great many writers in regard to puncture of the antrum. It was published in the *Annals of Otology and Rhinology*, reporting a number of deaths supposed to have been due to air embolism. If you use a trocar with an air outlet from the antrum you avoid the danger of air embolism.

In regard to the so-called Pratt method, if you go into this region blindly with a blunt forceps you will get the partial opening, the danger of which Dr. Bulson has mentioned. The safest way to go into the sphenoid is either with a Sluder knife, a Hajek hook, or a forceps with one blunt blade. Open it thirty degrees, lay the blunt blade on the floor of the nose and push the forceps backward, the sharp upper blade being between the septum and the middle turbinate, and in the majority of cases you will make an opening into the anterior wall of the sphenoid. You should enter the sphenoid as far as possible from the optic nerve as well as the cavernous sinus and the carotid artery. Enter next to the septum, either with a Hajek hook or a Sluder knife. In the diagnosis of anterior and middle ethmoid cases a great many times if you infract the middle turbinate and then use a probe in the middle meatus you will get a great deal of information you

cannot get in any other way. If you find ethmoid disease, remove the middle turbinate. That establishes drainage and nothing further may be necessary. The middle turbinate is practically always a diseased structure in ethmoid involvement.

In regard to Dr. Layman's statement about acute cases and their treatment, I have gotten good results with the so-called Dowling pack, but you will find a great deal of the pain results from obstruction and faulty drainage due to oedema of the middle meatus. Control that with cocaine, then put in the Dowling pack, and that will give the patient relief. The majority of acute cases if given ordinary general treatment, such as rest and the use of aspirin or pyramidon to control pain, will do very well.

In regard to Dr. Davis' statement about asthma in connection with ethmoid disease, no doubt many of you are familiar with the Adams theory brought out a number of years ago, that asthma is a general toxic condition plus an infection of the ethmoids. In the last few years I have seen many asthma cases, but I have yet to see a case where I failed to find ethmoid involvement. If you treat the ethmoid alone you will get results in many cases, but as soon as the general toxic condition gets to a certain point the trigger zone in the ethmoid will produce an asthma attack.

Regarding Dr. Keiper's statement, the antrum may act as a reservoir, but it can be either probed or washed out. Use a blunt probe in the antrum and then wash it out; keep the patient a half hour or so and examine the nose again. If there is pus in the middle meatus you may be absolutely sure it did not come from the antrum. It may come from the anterior ethmoid cells or the frontal. The next thing to do is to probe and wash out the frontal.

My experience with heliotherapy has been rather limited. Most of the cases have been benefited by general radiation combined with local radiation, but apparently most of the benefit has come from the general rather than the local application.

Dr. Howard spoke of the dangers of ethmoid surgery, and there are great dangers; but it is a great deal safer to take off the middle turbinate by setting your Sluder knife in position as close as possible to the roof of the nose, and then when you operate you are going away from the danger point.

CHRONIC NEPHRITIS*

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Any consideration of the subject of nephritis must begin with a proper understanding of the function of the kidney and its parts. The modern theory is that the kidney consists of two distinct portions: the apparatus of filtration, which

is presided over by the glomeruli and Bowman's capsule, and the tubules of the kidney. The kidney is an organ of filtration and of elimination, not of secretion. There are no nerves to the organ presiding over the elimination of the urine. They have been sought for by histologists, but have never been found. There are vasomotor nerves to the renal vessels, to be sure, but no nerves that govern the secretion of urine. The kidney, then, is nothing but a filter, pure and simple.

The filtration apparatus ordinarily permits the passage of everything except the colloid materials of the blood plasma. It lets out, ordinarily, more water and more solids than need to be eliminated, but there is a reabsorption apparatus, the tubules and the cells of the tubules, which take back some of the excess of water which is eliminated and a good deal of the basic salts which are essential to the body economy. The kidneys, therefore, do not eliminate too much of the alkaline bases because a certain portion is reabsorbed, so that the amount of alkaline bases in the blood-stream is kept at a constant level. When this blood-stream level of alkaline salts rises too high, when the threshold of filtration is, therefore, low, an excess of these alkaline bases appears in the urine, chiefly as the earthy phosphates.

Now, it happens always that the balance between the work which is done by the filtration apparatus and the work which is done by the reabsorption apparatus is so regulated that the urine stays at a specific gravity that is about constant; that is, the amount of fluid and solids secreted is about constant. We expect a daily output of about 1200 to 1500 c.c. of water, at a specific gravity of 1017 to 1024. The output and the specific gravity of the urine will fall constantly within these limits in every well and sound individual.

It happens at times that it is necessary, because of some insufficiency of function on the part of the filtration apparatus, to get more water through than ordinarily would pass. If there be some disturbance on the part of Bowman's capsule so that it is not so good a filter as it should be, there is no way to bring about an increased flow, since there are no secretory nerves leading to the kidney, except to raise the pressure of the blood-stream in the glomerulus. The renal filter is like a water filter. When you want a water filter to filter more rapidly, you turn on the water faucet to increase pressure and suction, and when you want the kidney to filter more rapidly you must necessarily increase the blood-pressure. There is, then, constant inter-relation between the pressure of the blood in the glomeruli and the amount of urine necessary to be excreted. When the glomeruli cease to function properly there must needs be an elevation of blood pressure to compensate for the diminished excretory power

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of Bowman's capsule. This blood pressure is both systolic and diastolic, in time.

There is another type of blood pressure encountered frequently which is called benign, in which the systolic pressure may be high and the diastolic low. Patients with this sort of a blood pressure are not nephritic patients. I remember a patient I had who is still living after several years of observation who has always had a systolic pressure of 280, with a diastolic of only 70 to 80. This patient belonged to the class of patients showing essential hypertension. On the other hand, in a nephritic patient, when the filtration apparatus becomes involved to any extent, the *diastolic* pressure rises. In other words, in order to have a pressure which will permit filtration through Bowman's capsule the elevation of the systolic pressure is of no account; there must also be a continued high diastolic pressure.

There was a time when the diastolic pressure was ignored, but I regard the diastolic pressure as of more importance than the systolic. Diastolic pressures give more information in regard to the function of filtration than do systolic pressures. I do not mean to say that diastolic pressure is raised solely by this one thing. It may be raised as the result of other things, from infection of the thyroid gland and from increased intracranial pressure, but high diastolic pressures invariably point the way toward a careful scrutiny of the filtration apparatus of the kidneys.

With these facts in mind it becomes evident with a little more thought that there may be several different types of disturbance on the part of the kidney; one, in which there is disturbance of the filtration apparatus, and another in which there is disturbance of the reabsorption apparatus. In the first group of cases we will have the so-called "wet kidney" and in the other group, in which the reabsorption does not take place, there will be the so-called "dry kidney"; meaning by those terms, in the first instance, a kidney associated with edema and in the second instance no edema whatever but a polyuria.

One can perceive readily that if there be a disturbance of filtration, one of the consequences will be that not enough fluid will go through Bowman's capsule. Another consequence is that colloid substances will go through, and consequently we are almost certain to have albuminuria and oliguria. If the trouble with the capsules is acute, red blood cells are almost certain to appear in the urine. In the old-fashioned nomenclature these cases were dubbed "parenchymatous nephritis," and they all showed edema, albuminuria, oliguria and a diminution of the total solids. The reabsorption apparatus has very little work to do in parenchymatous cases because there is nothing to reabsorb. There is a slight reduction in the specific gravity, unless the oliguria is marked, at first not a great deal, usually some-

where between 1012 and 1014, but the total solids are always reduced.

We can get similar changes in the urine in another condition which has nothing to do with the kidney substance itself, but which has to do, in the later stages of one's existence, with the arterial supply to the kidney. If we stop to think, it is evident that the arteries must bring the blood to the glomeruli. If there is some disturbance so that the blood brought to the glomeruli is not sufficient in amount, then it will be evident that the amount of filtration must be lessened; but it will also be evident that although the amount of filtration may be lessened there will not be any interference with the osmotic function of Bowman's capsule, so that there will be no albuminuria, but merely an oliguria with a diminution of the total solids. This is the arteriosclerotic kidney.

One of the classifications of kidney diseases which is excellent is that of Volhard and Fahr, in which renal affections are divided into nephroses, or degenerative cases, nephritides, or inflammatory cases, and arteriosclerotic kidneys. The arteriosclerotic kidney is that in which the disease first appears in the arterioles of the glomeruli, and later in which the glomeruli themselves become involved, so that at first there is merely a reduction in the volume of the urine and of the total solids, but no albumin or casts. Not until the glomeruli are affected does the presence of albuminuria and of casts occur. In the last stages of one's life when a patient is suffering from arteriosclerosis, there is added to the morbid picture of arteriosclerosis of the renal arteries a nephrosis, with the result that the patient passes into a very sad state of affairs. Years ago I read in Senator's work on the kidney a statement to the effect that when albumin appears in the urine of these patients they do not live longer than two years. This is very true, indeed, for albuminuria marks the invasion of the glomeruli. It is indeed true that when arteriosclerotic patients begin to show albumin they degenerate rather rapidly, and seldom live two years thereafter.

This classification into nephroses, or degenerative nephritides, or inflammation, and arteriosclerotic kidneys is excellent theoretically, but the difficulty is that we never know in an individual patient whether the process is nephrosis or nephritis or, indeed, whether it is not a combination of the two. In studying kidney patients it is very difficult to determine whether the morbid process is infectious or degenerative. Theoretically, a nephrosis patient should be one with degeneration of the kidneys, and a nephritic patient should be one with inflammation of the kidneys, but who is to be sure in a given case which is which, and what difference does it make, in any event, so far as treatment and life-saving is concerned?

A word in regard to the old classification of nephritis cases. The old classification was "acute" and "chronic." The old *acute* nephritis used to be regarded, and I think some of us still regard it, as a diffuse affair affecting the entire substances of both kidneys. That is the usual concept. We are quite willing to admit that tuberculosis is a focal infection which may affect but one kidney. We never think of a pneumonia as involving all of both lungs; we know it is lobar or lobular; yet we have this old conception that in acute nephritis both kidneys are simultaneously and equally involved. I am sure this is a wrong conception. We must look upon many cases of acute nephritis as focal infections of one or both kidneys, and of patchy dissemination. I think if we would, in a number of these cases, catheterize each ureter we should find a great difference in the urines excreted by the two ureters, and I believe we should often find the focus of infection confined entirely to one side. In fatal cases we find inflammation in both kidneys, but how is it in the ordinary case of nephritis which recovers readily?

Another point in these milder cases of acute nephritis is that if we make a blood chemistry test we often get excellent results. The creatinin, blood urea, uric acid and nonprotein nitrogen are normal in amount. There is no deficiency, secondary or functional; the renal capacity in these cases is all right, so that we must look upon these acute cases not as diffuse, affecting the entire substance of both kidneys, but as focal in the majority of instances. As we know, most of these acute cases recover, and they recover without ever passing over into the chronic type. I was taught this in the medical school from which I graduated, and I think it was a very shrewd observation that led to such instruction. Acute nephritis and chronic nephritis are entirely different morbid entities and acute nephritis does not pass over into chronic nephritis. The acute cases are true nephritides, inflammations. Chronic nephritis belongs more to the nephrosis group than to the nephritides.

Since it is very difficult to differentiate between degenerative and infectious types in *chronic* cases, the much more simple classification into the wet and dry kidney is preferable. We must remember that there is such a thing as an *acute* wet kidney which may be recovered from entirely. A glomerular nephritis, then, may be acute and may be recovered from, but most glomerular nephritides begin as chronic affairs and they are the ones which lead to the general signs of dropsy and a wet kidney. We can predict from what we know of the function of the kidney and of its pathology what the urinary findings will be. We know that there will be an accumulation of acids in the blood stream. When the glomeruli do not put out waste products as they should there is inevitably a tendency toward the production of

an acidosis, and when this acidosis reaches all over the body and involves the plasma of all of the cells of the body the plasma begins to lock up water, with the result that there is general anasarca.

In the cardiac cases it is different; the lower extremities begin to lock the water first, because acidosis first appeared in the lower extremities owing to the disabled circulation, but in renal cases there is a generalized acidosis and, therefore, a generalized edema or anasarca. When you find this anasarca you are at once able to differentiate between the cardiac and renal types of disease.

Inasmuch as these cases of wet kidney with the anasarca inevitably have a disabled filtration, there comes an attempt on the part of the heart to raise the blood pressure high enough to bring about improved filtration, through Bowman's capsule. The result is that the heart has more and more work to do, and the diastolic pressure constantly rises. It may start up slowly over a period of several months, but it rarely ever goes above 140 mm. of mercury. By the time it gets to that level heart failure is staring one in the face.

Added to the renal anasarca there is, then, a secondary cardiac edema, a combination of both sorts of edema, so that some of these nephritic cases in the later stages show a good deal more anasarca in the lower extremities than elsewhere. If they sit up in bed the patients get edema around the abdomen and thighs, because of the secondary effects on the part of the heart.

In the tubular cases the behavior is quite different. The tubular case has a disturbance of the cells of the tubules and consequently reabsorption cannot take place. Filtration goes on very well, unusually well. These patients have polyuria, they have nocturia. One of the most important points in the history is that the nocturia exceeds the diuria; the 8:00 p. m. to 8:00 a. m. output exceeds the 8:00 a. m. to 8:00 p. m. output. Nocturia almost always occurs in disturbances of the tubular type. These patients do not have albumin; they may go for years without albumin. They do not have casts in the early stages because the colloid material does not come through the cells of Bowman's capsule to "set" in the tubules. The progress of the disease is very deliberate. A patient may go on for twenty years. He does not get on well for twenty years, but it is possible for him to live that long with tubular nephritis, provided the morbid process does not extend too rapidly.

There comes a time, however, when there is an extension backward of the disease from the tubules to Bowman's capsule, and when this takes place there is added rather quickly to the symptomatology, on the part of the tubules, a set of symptoms due to disease of the glomeruli. These cases often end with symptoms of uremia

because of the involvement of Bowman's capsule. Colloid substances come through, coagulation takes place in the tubules, casts are developed and the epithelial cells from the tubule walls stick to the surface of the casts, and come down in the urine as epithelial casts.

Just as the tubular type of disease may extend to and involve Bowman's capsule, the glomerular type of nephritis may extend toward the tubules.

There are, therefore, four types of cases that one can theoretically encounter: the glomerular and glomerulo-tubular, the tubular and tubulo-glomerular. As a matter of fact, the glomerulo-tubular type does not exist to any extent because the glomerular type is fatal within a few years, but the tubulo-glomerular type is very common, the old, so-called diffuse nephritis, for a patient with this malady lives sufficiently long for involvement of Bowman's capsule to take place. So we have two large groups, the wet and the dry kidneys, and two subdivisions, the first, the glomerular, and the second group, the tubular. The second group is very large and in it are to be found a good many cases of the tubulo-glomerular subtype.

The termination of either of these two groups may be by apoplexy, because in either there is apt to be disturbance of blood pressure, but since no artery ever breaks that is not first diseased, it is not common for glomerular nephritic cases to have apoplectic seizures, because the arteries are not so degenerated in the three years that elapse between the beginning of this illness and death. In the tubular cases which are long drawn out, arterial disease takes place in the brain and elsewhere, and because of this arterial disease and increasing kidney trouble, with resulting high diastolic pressure, a break takes place. In a large percentage of tubular cases death occurs because of rupture of the cerebral arteries.

Either of these types, the glomerular or tubular, can end by uremia. In glomerular nephritis, uremia is the expected method of termination. In the tubular type, if the patient lives long enough there is a secondary disturbance in Bowman's capsule sufficient to lead to so great a disturbance of filtration as to lead to a terminal uremia not infrequently.

Both types of patients can also die by the heart route, because in each the back pressure from the kidney may be so great that the diastolic pressure may rise and the heart be defeated in its struggle to put the blood through the kidney. The heart dies and with the heart death there is, of course, instant death of the patient. So death is usually due to heart defeat, uremia, or cerebral hemorrhage.

There is another element in these cases which has to be taken into consideration, and that is something one hesitates to say very much about because of a lack of knowledge of the subject.

We know the glomerular type of case is due to some gross etiological factor of intoxication. We suspect that glomerular cases are largely due to bacterial toxins, and to a lesser extent to metabolic toxins. We think the type of tubular disturbance is very largely a metabolic intoxication. The latter is a very slowly developing thing and this metabolic intoxication produces a disturbance not only on the part of the kidneys but on the part of the blood vessels as well, so that we have constantly mixed up with the tubular type of case the arteriosclerotic type, and it may be that arterial changes will be the earliest noticed in an examination of the patient.

For instance, one individual patient at thirty or thirty-five years of age showed hardening of the brachial artery, which was tortuous and snaked out with each pulsation. The aortic sounds were not quite smooth, there was a little enlargement of the left ventricle of the heart. We cannot ignore these findings. They mean the gradual intoxication of the body by something, probably not bacterial, probably a metabolic affair. As time goes on this intoxication may work more on the arteries or more on the kidneys. It seems to be to some extent selective, and hereditary influences govern the effects which it produces. Indeed, it seems to some extent familial. There are some families in which there is early degeneration on the part of the arteries, others in which there is degeneration on the part of the tubules of the kidneys. It is well to inquire into the family history. If the disturbance of the arteries affects the arterioles of the glomeruli and produces a hyalin degeneration, we may have as a primary effect a diminution of secretion, not because the glomeruli are affected, but because less blood comes to the glomeruli. Thus we have the early arteriosclerotic kidneys. I used to say to myself, "This is an arteriosclerotic kidney because of the reduction in specific gravity and the oliguria, without albumin or casts." This condition may last ten, twelve or fifteen years and, as Senator many years ago said, when albumin appears the prognosis is bad. We interpret our modern knowledge of the kidney to the effect that after the glomeruli begin to be disturbed, after the tubules begin to permit the passage of colloid material and albumin appears in the urine, then, of course, the prognosis is bad because we have indurated arteries, an indurated heart and, finally, indurated kidneys. The result is disaster and the question arose many years ago as to which was the cart and which the horse in these cases. We could not tell because in some the heart and in others the kidneys seemed to be first involved. The idea of grouping them into cardiorenal cases is good. To say that these cases are nephritis is to some extent a guess. To say that one group of cases must be a group of nephroses and that another group is inflammatory and, therefore, a group of nephritides, is almost splitting hairs. We can classify them

very nicely by dividing them into wet and dry, tubular and glomerular cases.

Another point in the solution of the diagnosis is the behavior of the blood chemistry in these cases. We cannot tell a thing about the future of these cases without knowing what the filter leaves behind in the blood stream. Suppose a patient has a focal infection of one kidney, in one little spot. We will get a lot of casts and a lot of blood cells and a urine which will look very badly, all due to one little bit of infection. On the other hand, we may have an enormous degeneration of the tubules and have nothing show in the urine. Consequently, examination of the urine does not mean much. I remember one patient who came to me some fifteen years ago with a fatal prognosis. A physician had said he was going to die; there was no doubt about it, yet he is still living. He had one of these little focal infections which looked as if it might become chronic, but we gave him a good prognosis because he showed red blood cells and the process was, therefore, focal and acute. Although the urine was loaded with casts and there were a good many red blood cells, still the outlook was good and he made a good recovery. The thing that makes for the prognosis is not the water which goes over the dam, but the material which is dammed back. For this purpose we must examine the blood stream and it is absolutely necessary to have a good, dependable blood chemistry examination.

Nowadays these tests are made easily. If the blood urea is 12 to 24 mgs., if the urea nitrogen is 24 to 36 mgs. per 100 c.c. of blood, and the creatinin not more than 1.8 mgs. per 100 c.c., the outlook is all right. If the urea nitrogen goes up to 250 mgs. per 100 c.c. of blood there is danger ahead. If the creatinin reaches 9 mgs., the patient will die at once. So by having a thorough knowledge of the blood chemistry we can make a good prognosis.

I have in mind a young fellow in Oshkosh, Wisconsin, who came back from the army with a bad prognosis, but his blood chemistry was normal and he is still alive, after six or seven years. We do not have to worry about these cases if there is good blood chemistry. On the contrary, we all have patients on their feet, going about their daily tasks, and not dreaming of sudden death, but upon making a blood chemistry examination we can say they are going to die soon. I remember one patient at Mercy Hospital, a patient with nephritis, who did not look badly but who died the day following our blood test, according to the predictions I gave his wife, because his creatinin was very high. It was up to 9. Patients cannot live with this high retention, the uremic symptoms will surely come on. We do not expect uremia in the early stages of the tubular types; it does not appear until the glomeruli begin to be involved. On the other

hand, we expect uremia rather early in the glomerular type, which in the old days we called "chronic parenchymatous nephritis."

Certain toxins have a tendency toward involvement of certain parts of the kidney. The toxins which follow scarlet fever and tonsillitis almost always involve the glomeruli. They produce a disturbance, as in scarlet fever, which will lead to death, or, as in tonsillitis, there may be complete recovery without one vestige of trouble on the part of the kidney. The same is true of diphtheria. The kidney usually heals and heals "clean," without any after-effects whatever. On the other hand, cases which begin insidiously, which are perhaps due to metabolic toxins, are the cases which chiefly involve the tubules and which go on to death.

Now, another point which I will mention rather confidentially, as between physician friends. It is merely an idea; I have nothing, except perhaps clinical experience, to back it up. I believe that the intoxication comes from the alimentary canal in many instances, perhaps in the vast majority of instances. I know that in very many cases the intake of an excess of proteid substances will lead to a disturbance of renal function, even without disturbance of the digestive function. I do not know what the toxins are, but I think that they are sulpho-albumins, which Basham's mixture splits up and detoxicates, and I think we can prevent or greatly delay the progress of some of these diseases by the prolonged administration of Basham's mixture. I think its effect is entirely upon sulpho-albumins within the bowel. Basham's mixture is not a diuretic. It evidently prevents, in some way which we do not know, the liberation of and action of these toxins which get into the blood stream and affect both the arteries and the kidneys.

DISCUSSION

JOHN H. WARVEL, M.D. (Indianapolis): I enjoyed Dr. Mix's presentation very much. The one thing in particular which I think is worth while to remember is the point that he brought out that examination of the urine does not always give one a definite idea as to the extent of the damage which has taken place in the kidney. Examination of the urine simulates the examination of sputum for tubercle bacilli. An individual may have only a small focus of tuberculosis which is located near a bronchiole and the sputum can be loaded with tubercle bacilli, or he may have an extensive infection which is not located near one of the air tubes and show very few or no bacilli in the sputum. This same condition holds true in diseases of the kidney. The patient may have a fairly normal output and a normal specific gravity, with extensive kidney damage. For this reason blood chemistry is oftentimes of great value in the study of nephritis. I believe one of the most important examinations of the blood in the study of kidney conditions is the

estimation of the amount of retention of uric acid. This comes early in both the glomerular and tubular types of nephritis. It always precedes any blood retention of urea, non-protein nitrogen or creatinin. I believe that an examination of blood for creatinin is the most important in a prognostic way. We seldom find a patient with the blood creatinin of 6 mgs. per 100 c.c. who recovers, although several cases have been reported where creatinin was as high as 10 mgs. with recovery. I have seen several patients with creatinin above 6 who were mentally clear and had a fairly good output of urine in a twenty-four hour period, but they usually died within a short period of time.

I recently saw a patient with a severe nephritis whose output of fluids for twenty-four hours was very limited, but later the kidney seemed to open up and she passed from 1200 to 1400 c.c. of urine per day. This was a court case and I was called to make examinations which would be of value in a prognostic way. As early as the fifth day after her nephritis developed she had a creatinin of 7 mgs. per 100 c.c. and we informed the relatives that we thought she would die. Her uric acid at this time was 15 mgs. Four or five days after this examination the patient began to put out large quantities of urine, and her creatinin dropped to 2.7 mgs. At this time we felt that we had made the wrong prognosis and the patient was going to recover, but within a few days the non-protein nitrogen and creatinin again rose to much higher levels and the patient died in a period of about ten days.

I believe the phenolsulphonephthalein test is of value in the chronic tubular type of nephritis. This type is often characterized by a quite marked drop in the output of dye in the two-hour period, but with only a little retention of the blood chemistry.

I was also very much interested in Dr. Mix's remarks in regard to chloride retention and I believe this subject should be given more careful study in all the different types of nephritis.

GEORGE E. MOATS, M.D. (Fort Wayne): I would like to inquire why there is such a pronounced polyuria in cases of hysteria and, secondly, how to explain the enormous amounts of urine that are secreted in apoplexy.

WILLIAM A. FANKBONER, M.D. (Marion): This paper impresses me as a cameo, so clear-cut, so well presented and so understandable. I remember when I was a student the difficulty I had in harmonizing the different classifications of nephritis and what was likely to happen in each type. This simple explanation gives us a perspective of the fundamental condition present, and I think will be of great assistance to us.

Dr. Mix mentioned ascites in heart cases and the fact that the cells of the lower extremities exhibit more ascites than the cells of the rest of

the body. Perhaps I have a wrong conception of this. It always has appealed to me that the matter of gravity may have something to do with this. Why should the cells from the waist down be more hungry for something than the cells of the rest of the body? Whatever is present is present in the fluids of the body, which are equally distributed. Is the condition in the cells of the lower extremities different from that of the cells of the rest of the body? Is there some chemical or physical state, or is dependency a factor to be considered at all?

CHARLES LOUIS MIX, M.D. (closing): I did not intend to say anything further, but will have to answer the questions that were asked. As to the first question, it is hinted by the doctor that the polyuria of hysteria must mean that the kidney has a secretory function which becomes activated at times and leads to polyuria. I have tried to say that not only do the glomeruli preside over the excretions, but also the arteries themselves have a great deal to do with the amount of urine which is excreted, because if they are dilated and more blood comes to the kidney, more fluid is taken out of the plasma. The disturbance may be so great that one may have attacks such as occur in Dietl's crisis, due to the disturbance of the supply of blood. It is a disturbance not of hypothetical secretory nerves to the kidney but of vasomotor nerves to the arteries of the kidney. When there is a marked renal polyemia there will be a marked renal polyuria in consequence thereof.

As to the amount of urine secreted in apoplexy—in the first place, I am not aware that there is an enormous amount of urine secreted at that time. It is sometimes difficult to make definite estimations, but in the first stages of the stroke some of these patients have to be catheterized because of retention. In catheterizing we do not usually obtain an enormous amount, but an average amount. We may not have to catheterize such a patient more than once in twenty-four hours. When overflow begins to take place from the bladder, although the patient may urinate frequently, it is only in a small amount. Yet I am willing to concede that at times there may be polyuria in cases of apoplexy, which I can explain very readily. You have all noticed that in cases of apoplexy the heart may be much more steady following the stroke than preceding it. I do not know why this is, but at any rate in the unconscious state the heart runs along better, and the elimination through the kidney may be better because of an improved cardiac function.

As to the distribution of edema in heart cases, the hypothesis that the same fluid is distributed all through the body, and that, therefore, anasarca should obtain generally, is not altogether true. There is a venous stasis which takes place in the lower extremities, and it takes place in

other regions in which the body cannot well impel the flow of blood. That is, where capillary pressure is lost, stagnation is greater. In those cases local acidosis of the cells may take place and in pendant parts does. In those cases we, therefore, get edema of the lower extremities.

I am also asked what I think of the urea test. We used to do it to determine the function of the kidney. We used to think that if much urea came through into the urine it was because much urea had to come through as it was in the blood stream, but now we do not use this old test. I practically never ask for the amount of urea that is in the urine. What I want to know is the blood chemistry: how much is left behind in the blood stream, which is ascertained not quite so easily but which gives us more important information.

The question as to how we should manage the treatment of a patient with no urinary findings except low specific gravity and high diastolic pressure is difficult to answer. Many of these patients show a urine with a low specific gravity and polyuria, a high diastolic pressure and no albumin or casts. We know the patient is headed for trouble. When this occurs, of course, the best treatment is prophylactic—to spare the kidneys as much as possible by limiting cardiac strain and restricting the nitrogen intake. It is always necessary to have these patients avoid doing anything whatever that can in any wise injure the myocardium. All stress, emotional or physical, should insofar as possible be eliminated.

I think these patients should be put upon Basham's mixture indefinitely. I think there is some hope of aborting the speed of progress by this means. The only thing we can do is to make a sort of back-wash so that the individual will not go on down hill with too much speed. With the information we now have we cannot save such individuals—they all will be destroyed by the morbid process—but I do think it is possible to delay the execution of these patients for some years by means of proper diet, and care of the heart and arteries.

THE DIAGNOSIS AND TREATMENT OF BRAIN INJURIES*

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In the consideration of cranial injuries and the literature on the subject the fact stands out that this particular field of surgery has lagged behind other fields of surgery in advancement. In the remote past one might not see a case of severe cranial injury in several years, but with the increase in modern motor traffic no degree of isolation prevents this opportunity, and it is demanded of us that we do more than pack these cases in ice and wait to see what happens.

Along with other relics of antiquity we have carried with us the diagnostic farce of "skull fracture." We have gone on diagnosing, prognosing and treating cases of cranial injuries on the presence or absence of a skull fracture. Skull fracture in itself is not a diagnosis, it is a symptom, a part of a situation. The skull does not function actively, but is a passive protection to the brain and its attached circulation, while the soft structures of the brain do function actively, and their function is so important that they are the only tissues of the body that have been given the protection of a complete bone covering. This protection, however, is not absolute, and in case of accident injury may be transmitted to the brain through the unbroken skull.

The symptoms of the so-called skull fracture have become classical. The patient is gravely insulted, he is comatose or nearly so, he vomits, he has a severe headache, a rapid pulse, and develops all of the symptoms of severe shock; if he survives, the pulse rate comes down, but in certain cases the pulse rate continues its downward course to 60 or below, and then after a period jumps to 130 or higher, Chene-Stokes respiration develops, and the patient dies; and surprisingly these symptoms are often most severe in what is apparently a very simple skull fracture. It has been observed that all of these particular events occur in many cases of cranial injury where there is no fracture of the skull and the patient pursues the same clinical course, and that many of these cases are of greater clinical gravity than some of the cases with severe skull fracture, and if they recover are afflicted with the same post-traumatic neuroses as many of the cases with skull fracture. This can be interpreted in one way only, that the condition is not due to injury to the skull but to the associated pathology of the tissues normally under the protection of the skull. The investigation of this pathology has determined the fact that all of these symptoms are due to direct brain injury and increased intracranial pressure resulting from hemorrhage, edema of the brain, and derangement of the mechanism that maintains a normal intracranial pressure by secretion and absorption of the cerebrospinal fluid. Brain tissue, like any other soft tissue, will swell following injury, and with its elastic coverings the situation is not unlike the fractured leg with a too tight inelastic plaster cast.

The incident of increased intracranial pressure has been recognized for more than twenty years, but the dramatic presence of fractures of the skull has continued to overshadow its importance until recently. It is only in the last few years that the work of Kocher, Leyden, Duret, Horsley, Hill, Cushing¹ and others, together with the invention of the spinal manometer and the more general use of the ophthalmoscope, has given us a clearer

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understanding of the pathology and a more definite method of diagnosis in these cases, and, therefore, a more satisfactory treatment, with a marked lowering in the mortality and morbidity, which latter is equally as important.

The value of these teachings has been given very little publicity, and it is only recently that articles on this subject have begun to filter into the surgical literature in sufficient numbers to hold attention. Sharpe² has presented a very valuable book on the subject, and has adopted the very bold attitude of refusing operation without consent for a necropsy in case of fatal issue, a practice which has given him a wealth of post-mortem information.

Hill, with the assistance of his pneumatic bag, and Harvey Cushing, with his glass window inserted in the skull of a monkey, have described the physiological responses to increased intracranial pressure, a brief review of which is proper here as it is almost the entire secret of our diagnosis and treatment. The condition is not one of compression of brain tissue, as brain tissue is practically incompressible, but is one of disturbed circulation, and the gravity of the situation increases in direct proportion to the obstruction of the circulation to the medulla, in which are located the very important respiratory, cardiac and vasomotor centers.

The first effect of increased intracranial compression is to squeeze out the small amount of cerebrospinal fluid normally present. As the pressure is increased, part or all of the blood present in the veins is expressed, and as the compression continues to increase, the blood is forced out of the capillaries and finally the arterial pressure is reached, completely blocking the blood supply to the brain and producing a definite anemia that particularly affects the medulla and its nerve centers. Fortunately an anemia of the vasomotor center immediately causes, through the splanchnic vessels, a rise in blood pressure sufficient to again drive blood through the constricted capillaries, thereby temporarily relieving the existing anemia. If the compression continues to increase, the capillaries and arteries again are compressed and an anemia once more produced. Again the vasomotor center is stimulated and the blood pressure raised above that of the existing compression, and the same cycle is repeated until either the compression ceases to increase or until the vasomotor center becomes fatigued and a medullary collapse occurs, with a sudden fall in blood pressure and an inevitable fatal result. With this understanding, the external signs and the internal pathology are more definitely associated, and we understand why certain things happen, and we can proceed more intelligently. We also learn that "brain injury" appears as a diagnosis instead of the old stereotyped "skull fracture." Accurate methods of determining the presence and degree of increased intracranial

pressure and successful means of combating it in most cases have been devised, and these cases are handled with considerable interest instead of indifference.

Our first consideration is the salvaging of the life of the patient, but our responsibility does not end here. We must direct our attention towards attaining a normal individual, approximating as closely as possible the condition of the person before injury. It has become a common belief that once a person has suffered a so-called skull fracture and recovers, he is never again the same individual. Many of these cases without operation or delayed operation afterward complain of persistent headache, with a changed personality of the depressed or excitable type, emotional instability, early fatigue, lapse of memory, and in some cases epileptiform attacks. Pleasant individuals become morose and sullen, and men previously ambitious, shirkers and tramps, and often their greatest misfortune lies in the fact that they survived their injury.

Postmortem investigation has shown these symptoms to be due to direct injury of brain tissue, or to changes in the brain structure resulting from long-continued increased intracranial pressure. If the increase in the intracranial pressure is continued for a period of days, the amount of blood reaching the cortex is decreased in proportion to the increased pressure, producing a starvation of the delicate cortical cells, the cortex becomes pale and an increase in the neuroglia cells occurs. This increase in the neural connective tissues permanently prevents the normal functioning of the cortical cells, with a resultant post-traumatic neurosis. Like the laying down of scar tissue in any other part of the body, the situation is permanent, and the only treatment is the early recognition of the increased intracranial pressure and the institution of steps to relieve it.

The signs and symptoms of brain injury are those usually associated with skull fracture, the same symptoms, however, being present in the absence of skull fracture and varying in direct proportion to the degree of brain injury and increased intracranial pressure. The condition of the pulse, respiration, blood pressure, eye grounds, and intraspinal pressure all enter into the diagnosis of brain injury with increased intracranial pressure, and each has its respective merits. Before³ the advent of the spinal manometer, which is a recent addition and a more recent adoption in brain surgery, the pulse rate and the condition of the eye grounds were our most reliable guide, but the perfection of a method to measure accurately the intraspinal pressure has aided us materially in our diagnosis.

There has been considerable discussion concerning the merits of the intraspinal readings. In my own work it has been entirely satisfactory, and I place great dependence upon it. I can

conceive that with a spinal cord tumor, or a large subtentorial hemorrhage, the balance between the spinal canal pressure and the cranial cavity pressure might be affected, but our traumatic cases usually are not associated with cord tumor, and the cases with a large subtentorial hemorrhage will die very early from medullary compression before treatment can be instituted.

As in other surgical conditions diagnosis and the plan of action should take into consideration, and should be based on, all of the signs and symptoms present; but the pulse rate, spinal manometer readings and eye ground interpretation are of special value, as they are direct indications of the degree of increased intracranial pressure at a time when you can utilize this information. This is an age of early diagnosis, and in no surgical condition or situation is early diagnosis of more importance than here.

In an effort to condense this paper and concentrate upon the most important aids in diagnosis and treatment, I am passing over the local signs of nasal and oral hemorrhage, convulsions, reflexes, and other minor symptoms of less importance. It is very rare for brain injury of any severity to exist without there being present the initial complication of shock, and very frequently the condition of shock is so extreme that the patient is unable to stand it and an early death results from shock alone. In the presence of extreme shock you cannot operate, as even an extensive examination but adds to the shock already present, and it matters little to the patient if he cannot survive his shock whether or not he has a double Babinski or a ruptured ear drum. The same sensible rule applies here as in all injuries associated with shock. Treat the shock, which really lasts more than twelve hours, and if the patient survives, his pulse and respiration come down and his blood pressure goes up; then with deliberation you can proceed to determine what has happened to the brain tissue, and to what extent the intracranial pressure has been increased. And I again want to emphasize the fact that here lies the secret of the situation, all of the important signs and symptoms of your patient are hooked up with it, the heart and respiratory rate and quality being directly affected, and it is through these two media that the increased intracranial pressure by its effect on the medulla where the cardiac, vasomotor and respiratory centers are located, puts your patient in a dangerous condition or entirely destroys him.

By some operators the pulse is considered a rather reliable guide,⁴ a pulse of 50 being an indication for operative interference, but unfortunately it is not an accurate nor early means of determining the severity of the intracranial lesion. Ordinarily the greater the intracranial pressure and, therefore, the less the blood supply to the medulla, the lower the pulse rate, but the resistance of the medulla to the slight changes

in its circulation varies so much in different individuals that it is possible to have a high degree of intracranial pressure and yet a pulse rate of 70 to 80 for a period of hours. This continues until the respiratory, cardiac and vasomotor centers in the medulla become affected, and while waiting for an expected lowering in the pulse rate the patient progresses to a medullary edema and collapse, with a rapid elevation of the pulse rate. If the pulse rate does descend to 60 or as low as 50 you have an excellent though rather late danger signal, and it should be heeded as a definite indication of medullary compression. If you are to assist your patient you must do so here, for the next steps are medullary edema and collapse, and your patient will die with or without an operation. As the pulse rate descends it becomes full and bounding, evidently a very good pulse, but it is only the circulatory mechanism attempting to overcome the anemia of the brain and especially of the medulla.

It is necessary to distinguish between the pulse of initial shock and that of early medullary collapse due to subtentorial hemorrhage. If the rapid pulse is associated with subnormal temperature and blood pressure, it is due simply to shock. If it is due to an advancing medullary edema there will be an elevated blood pressure, and an elevation of temperature that continues to rise to 105 or higher as the pulse grows weaker and finally becomes uncountable.

Temperature is characteristic in the two extremes, subnormal in shock, and 105 or higher in medullary collapse. It is, in itself, no indication of the degree of intracranial pressure until medullary edema is established, and it is then too late to utilize it as an indication for treatment.

Blood pressure is an assistance in diagnosis, though rather a tardy one. Only when the compression has involved the medulla does it rise to assert its importance. As the intracranial pressure increases and compresses the circulation in the brain, the vasomotor center in the medulla is stimulated and the blood pressure raised in an attempt to offset the circulatory compression and to maintain a normal blood supply to the brain. It possesses the distinct disadvantage that many patients, and especially those of advanced years, have had a very high blood pressure before their accident.

Before the perfection of the spinal manometer the condition of the optic fundi was our most reliable guide to the degree of the increased intracranial pressure. It is still an extremely reliable guide, and when checked up with the reading of the spinal manometer, is invaluable. Fortunately in most communities that support a hospital the surgeon who has not schooled himself in the interpretation of the eye grounds now has access to a qualified oculist. The fundus of the eye, and especially the retina, being an offshoot of the brain, is most intimately connected with the brain

and intracranial cavity, so that any pathology within the cranial cavity that increases the normal pressure shows evidence in the fundus, and especially around the nerve head. The increased intracranial pressure preventing the free return flow of blood from the eye causes a dilatation of the retinal veins, which is the first symptom of increased intracranial pressure that appears in the eye grounds. If the pressure continues to increase, the nasal half of the optic disc becomes blurred, then the temporal, then an edema of the nasal half, followed by an edema of the temporal half, and you have a beginning choked disc or papilloedema. Due to the initial shock usually associated with cranial injuries, and the resultant lowered blood pressure, the fundus signs usually do not appear for three or four hours. The cases showing earlier fundus signs are those of severe subtentorial hemorrhage, and usually die in from six to twelve hours, and operative procedures are not instituted.

I feel that the measurement of the intraspinal pressure is our most important single guide, and can be depended on even in confusion concerning the condition of the optic fundi and the pulse rate. The normal intraspinal pressure in the adult is from 7 to 9 mm. hg. Any elevation above 12 mm. may be considered above physiological limits. An increase to 16 mm., at the most to 18 mm., twice the normal pressure, may be considered the limit of palliative treatment.

For convenience, clarity and decision, Kocher and Sharpe have divided the signs and symptoms of increased intracranial pressure and its resultant brain compression into four stages:

I. The First Stage of Compression, or the Medical Stage.

In the first stage as the brain starts to swell it expels the excess amount of cerebrospinal fluid, and as the brain tissue itself is practically non-compressible, the local blood vessels are next compressed, slightly lowering the amount of blood in the brain. As the blood in the cerebral vessels is under low pressure, these vessels become filled with blood and dilate, producing a venous stasis, the symptoms resulting being drowsiness, headache, and possibly stupor. The pulse, respiration and blood pressure are not appreciably affected, but the retinal veins become dilated and a very slight haziness of the nasal half of the optic disc may be observed. The pressure of the cerebrospinal fluid is from 12 to 16 mm. hg. Here operative interference is not to be considered because neither the cortex nor medulla are noticeably affected, and the pressure is not great enough to cause delayed changes in the cortex. Expectant palliative treatment is indicated, and excellent results may be anticipated. Approximately 60 percent of all cases fall within this class.

II. The Second Stage of Compression, or the Ideal Operative Stage.

The second stage of compression is characterized by a further increase in the intracranial pressure, the spinal manometer registering from 16 to 20 mm. The effect on the medulla of this continued rise in the intracranial pressure is the production of a slight anemia, which, due to a stimulation of the vagus and vasomotor centers, produces a slow pulse of 60 or lower, and a slight rise in the blood pressure. The intracranial venous stasis becomes more marked, increasing the headache, which is associated with marked restlessness and probably delirium, and there is a complete blurring of the optic discs, with large dilated retinal veins. This is undoubtedly the best time to operate to relieve the increased intracranial pressure. You now have definite encroachment on the brain and its important centers of the medulla, which unless relieved leads to the destruction of the patient. Here you anticipate the further advance of the intracranial pressure with its increased medullary compression, and the dangerous stages of medullary edema and collapse.

III. The Third Stage of Compression, or the Imperative Operative Stage.

In the third stage the spinal manometer shows an increased intracranial pressure of 20 to 30 mm. hg. The edema of the optic discs is greatly increased, the retinal veins are greatly swollen and may be partly buried in the swollen retina. The increased intracranial pressure causes a further compression of the medulla, with a more marked stage of anemia; due to the stimulation of the vagus the pulse goes to 50 or lower, and is of full, bounding character. The blood pressure varies as the vasomotor center is stimulated to throw more blood into the anemic medulla. The circulation of the medulla must be maintained or the heart, respiration and circulation collapse. Chene-Stokes respiration appears, and unconsciousness is present either constantly or periodically as more blood is forced into the brain by whipping up the blood pressure. This is your last chance for operative benefit, and is not ideal, because many patients operated in this delayed period will not survive the results of the continued compression of the important centers of the medulla.

IV. The Fourth Stage of Compression, or the Non-Operative Stage.

From the third stage the patient passes to the fourth or non-operative stage of compression. The regulatory mechanism of the medulla becomes fatigued by its continued compression and lack of sufficient blood supply, the pulse rate rapidly increases to 130 or higher, respiration becomes rapid and shallow, blood pressure falls,

respiration ceases, the heart continues to beat for a few minutes and death supervenes. An operation is definitely contraindicated, as in this stage the patient will die—operation or no operation.

In the first stage of compression the usual palliative details of rest, quiet, warmth, cold compresses to the head, liquid diet, magnesium sulphate⁵ and possibly morphine should be employed.

In the second and early part of the third periods, where mechanical relief is indicated, a decompression should be performed. The field of choice for this procedure is the temporal region, above the zygoma and anterior to the ear. Here the skull is very thin, it covers a comparative silent area of the brain, it gives access to the middle meningeal artery, which is so often injured, it permits exploration forward over the frontal lobe and backward over the parietal, the heavy temporal muscle gives considerable post-operative protection to the uncovered brain, and if the vertical incision is used instead of the former circular one there is little danger of post-operative brain hernia. The right side is preferred because of the location of the center of speech on the left side. A circular area of bone as large as possible under the temporal muscle should be removed, the dura incised crucially and not sutured, and a small rubber tissue drain inserted on the floor of the middle cranial fossa. The muscle, fascia and skin closed in separate layers, and the drain removed in forty-eight hours. If the pressure is extreme a second decompression should be performed on the opposite side, probably the following day.

For a number of years venesection was considered advisable to lower the increase in general blood pressure associated with brain injury, but it is no longer employed because it is recognized that the increase in blood pressure is an attempt of the vasomotor mechanism to force blood into the intracranial chambers and the medulla to relieve its anemia, the increased blood pressure being necessary because of the increased intracranial pressure. To bleed a patient then, even in very mild cases, is dangerous, and is always contraindicated. It never was a rational procedure, it being a part of the unsatisfactory treatment before the pathology of brain trauma was more clearly understood.

The procedure of spinal puncture and the withdrawal of spinal fluid to relieve the intracranial pressure is a much-mooted question.⁶ I think that there is a place for this form of therapeutics, but because the medulla may be collared in the foramen magnum by the increased intracranial pressure above it, it is a dangerous procedure and should be performed with extreme caution, allowing the fluid to escape very slowly.

To summarize in brief:

In cases of injuries to the head the possible injury to the brain is of more importance than the possible injury to the skull, and your special consideration is given to the brain structure.

Excepting external hemorrhage, shock is the first consideration; combat it before proceeding with other treatment.

If the patient survives the shock, and you have a spinal manometer, do a spinal puncture and measure the intraspinal pressure.

Whether or not you have a spinal manometer, examine the eye grounds, or have them examined by a competent oculist.

Have a thirty-minute pulse chart and take the blood pressure.

If the condition of your patient permits it, take an x-ray of the head. If you have a depressed fracture decide when you will elevate it. If the intracranial pressure is extreme it is best to do a decompression first. If there is no depression of the skull, and there is or is not a linear fracture, direct your attention to the relief of the increased intracranial pressure.

In the first stage of compression, with a spinal pressure of 12 to 16 mm. and a slight blurring of the nasal half of the optic discs, treat your patient palliatively.

In the second stage of compression, with a spinal pressure of 16 to 20 mm. and an edema of both halves of the optic discs, and a pulse of 60 or below, do a subtemporal decompression, on both sides if necessary.

In the third stage, when you have signs of medullary edema with a spinal pressure of 20 to 30 mm. and above, and an obscuration of the optic discs, and a pulse of 50 or lower, take a chance and operate—the patient may survive.

In the fourth stage of medullary edema and collapse, with a pulse of 130 and higher, a temperature of 105 and higher, and Chene-Stokes respiration, do not operate; the patient will die whether you do or do not, and you have only hastened his exit.

The development of an understanding of the pathology involved in these cases has produced a more definite surgical basis and changed it from a highly successful and unsatisfactory field of surgery to one that is full of interest and of pleasing results both in mortality and morbidity.

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DISCUSSION

LARUE D. CARTER (Indianapolis): As Dr. Rang says, skull fracture is not a diagnosis; it is merely a complication of a head injury. It is of little or no consequence, in the recent case, unless there is actual bony depression with injury to the underlying brain structures. In the old case we not infrequently find that a callus has been thrown out along the line of fracture which, together with dural adhesions, may produce Jacksonian epilepsy or other signs of brain injury.

Just what happens to the brain in head injuries? First, there may be a severe or massive hemorrhage. Second, there may be a tearing and a laceration of brain tissue, with more or less swelling. Third, there may be a general brain contusion in which we find, from the cortex to the base, innumerable punctate hemorrhages. Then we have a condition known as concussion, or *commotio cerebri*, in which there is no gross or microscopic pathology in the brain, but in which there is evidently some disturbance of the molecular arrangement of the brain cells. The existence of this condition is disputed, but Oppenheim has proven that beyond doubt it does exist.

As Dr. Rang has spoken of the acute phase of brain injury, I wish to mention briefly the chronic phase. It is easy enough to see how an injury to the brain, with tearing or actual loss of brain substance, will produce definite symptoms, that is, cranial nerve palsies or evidence of motor tract involvement, or if the higher psychic centers are involved there may be a true psychosis, usually in the way of a progressive dementia. In those cases in which there is only a contusion or concussion it is more difficult to explain how we get the numerous train of symptoms of which these patients complain. These symptoms are usually of a psychoneurotic nature, dizziness, headache, ringing in the ears, insomnia, fatigue, easy exhaustion, emotional instability, impairment of mental concentration, amnesia attacks, and a thousand and one things that go to make up the confirmed neurotic. As there is usually a medico-legal or compensation phase to these cases, we are often at a loss to differentiate between an old brain injury and our old friend, traumatic neurosis, which I believe is really a disease entity. It seems to me that where there has been a pretty severe head injury with or without fracture, that we may expect to find some residual pathology. That pathology may be in the nature of a chronic brain swelling, either intracellular or cellular. It may be a chronic leptomeningitis, with impairment of the absorptive power of the pachionian bodies leading to a low-grade external hydrocephalus. It is a well-known clinical fact that these cases treated with rest, elimination, cold applications, spinal drainage, and other methods directed to the relief of intracranial pressure often have relief from their

clinical symptoms. This would make us feel that cerebral decompression with an effort to drain the spinal fluid through other than normal channels would be a therapeutic measure of considerable value in a certain group of cases.

Going back to the acute group of cases, we may divide these into four stages: first, surgical shock; second, the beginning of medullary compression; third, advanced medullary compression, and fourth, medullary collapse. It is often difficult to differentiate between these four stages. Indeed, in many of the fatal cases they sometimes pass from the first to the fourth stage without the stage of medullary compression being apparent. Surgical shock, the result of injury elsewhere in the body, must also be considered as a complication, and often obscures the picture of the brain injury. Just recently I saw an old gentleman who had been in a street-car wreck. He was admitted to the hospital in a state of profound shock, with weak, thready pulse, low blood pressure and subnormal temperature. There was evidently a brain injury with a skull fracture, as he had been bleeding from the ears and nose and there was inequality of the pupils. He had at the same time an extensive injury to the chest. He died a short time later. Whether he died from shock, as medullary collapse due to the brain injury, or surgical shock due to the chest injury, I do not know.

The point Dr. Rang brought up regarding the use of spinal drainage in the stage of medullary compression should be considered. It is true that in the stage of medullary compression we have a swollen edematous water-logged brain, with a certain amount of pressure on the aqueduct of Sylvius and the foramen of Mangendie, and consequently an increase in the intraventricular pressure over the intraspinal pressure. It would seem, therefore, that any measures taken to relieve the intraspinal pressure might cause the wet, water-logged brain to jam the medulla down into the foramen magnum with disastrous results. Personally, I believe this danger is more apparent than real and that in the stage of medullary compression many cases may be carried over a difficult situation by the judicious use of spinal drainage, removing the fluid drop by drop, beginning the procedure with the head lowered, thus saving the patient from the more serious operation of cerebral decompression.

C. C. BITLER (Newcastle): It is the general practitioner who usually comes in contact with these cases first. Most of you gentlemen are surgeons or neurologists and usually connected with hospitals or institutions where the means of diagnosis and treatment are at your disposal, but we general practitioners, due to our lack of knowledge of the signs and symptoms that Dr. Rang and Dr. Carter described, and the lack of special equipment to obtain the necessary data, do not entirely comprehend what we

have or how to deal with it. We overlook many of these important circulatory disturbances and the cycle in which they come. I think it behooves every surgeon, and general practitioner as well, to have a thorough knowledge of the ophthalmoscope, and to be able to interpret what we see, such as retinal swelling, choked discs and dilated blood vessels. They are very significant.

Dr. Rang just passed over lightly some of the more common symptoms which we were taught in school to be of importance, namely, hemorrhage from the ears, mouth and nose. I think it is important in head injury to determine whether you have a skull fracture or a contusion of the brain proper without a fracture. In my limited experience it has been marvelous to me to note the amount of injury the brain will endure in some cases, while in other cases a very trivial injury will cause death very quickly. I recall a case which occurred two years ago. A child was hit by an automobile and an area of the skull was crushed in on the temporal region extending to the vertex. A piece of bone five inches long and one and one-half inches wide was driven in, lacerating the brain to the ventricle. When I was called the boy was conscious but bleeding profusely. The wound was dirty, because pieces of his cap and dirt had been ground into it. It was an emergency case, and there was no surgeon available, so I had to take charge of the case myself. I cleaned it up as best I could, and with what tissue I had left I covered the brain, and to my surprise the child never had an infection. He made an uneventful recovery. The only trouble he had was a leakage of cerebrospinal fluid through the wound. I had difficulty in getting it to close on this account. He never lost consciousness except when I had him under the anesthetic to do the repair work. It has been two years since the accident and he is going to school every day, is bright as ticks, and shows no untoward signs, such as vertigo, dizziness or irritability. I think there was at least two ounces of the left frontal lobe of the brain gone.

In regard to the treatment of these cases, it has been so well covered that there is not much to add. Dr. Rang has seemed to emphasize that spinal drainage might not be beneficial. I think at times it is. I have noticed that in these profound comas and capillary edemas if you do a spinal puncture and draw off 30, 40 or even 50 c.c. of spinal fluid that you get an improvement in a few hours, in which case the thing to do is to repeat it. If you do not get any improvement your efforts are in vain and it is well to stop it.

I do not wish to comment on the surgical aspect whatever. In regard to the use of morphine in head injuries, I think it is rather dangerous for the reason that head injuries at first may not

produce any symptoms, but in a few hours the patient becomes drowsy, somnolent and comatose. If you give morphine early you do not know whether it is coma from the morphine or from the cerebral compression. For that reason I think morphine should be used rather sparingly if at all. There is another treatment from the medical side that has not been used very much, that is, hypertonic salt solution. The theory is one of osmosis, withdrawing the fluid from the swollen edematous brain. I do not know how extensive it has been used, but the theory seems to be good, though I do not know that there is anything definite to prove it as yet.

In closing I would say that we should pay more attention to our head injuries and study them more carefully, and as Dr. Rang suggests, do not put them to bed with an ice bag to the head and tell the family to watch, wait and pray. I think the paper and Dr. Carter's discussion were very highly enlightening.

A. A. RANG (closing): Dr. Carter mentions the possible confusion of the four different stages of compression. This may occur. They do not always run true to form, but may show marked variations, as is true in all other surgical conditions. In severe trauma the progression through the various stages may be very rapid. I recall one case with marked hemorrhage that showed an intraspinal pressure of 52 mm. hg. on admission to the hospital thirty minutes after his injury.

I want to make a suggestion to Dr. Carter concerning the flexibility of the Wolfsohn lumbar puncture needle. These needles have a bayonet point and must be very sharp—much sharper than a lancet point needle. When very sharp they pass through the skin easily and the flexibility is not so noticeable.

Dr. Bitler mentioned hemorrhages from the ears. In many cases it is the most fortunate thing that could happen to the patient. Much blood and cerebral fluid may escape through such an avenue, and give considerable relief from the intracranial tension. I saw one case that ran a low intraspinal pressure until the drainage from the nose and ears ceased, and a decompression was then necessary.

Spinal drainage should be performed with the utmost caution. It does exert a beneficial result in selected cases, but should be avoided in the presence of extreme increased intracranial tension.

The use of hypertonic salt solution is still debatable. Weaver, of Atlanta, has published a most excellent article on this subject in the August number of *Surgery, Gynecology and Obstetrics*. Sodium chloride is dialyzable, and following a temporary benefit produces an accumulation of fluid in the tissues, and the patient drowns in

his own fluid. Magnesium sulphate is non-dialyzable, and is free from this objection. I believe we still have much to learn concerning the application and use of these salts to reduce intracranial pressure.

SPECIAL ARTICLE

EDITORS' AND SECRETARIES' CONFERENCE

THOMAS A. HENDRICKS,
Indianapolis

High lights of the annual conference of editors and secretaries of state medical societies, held at Chicago, November 20 and 21, 1925.

"Scientific medicine makes it stand against the quacks in the interest of **public health, not in** the interest of the individual physician, and in this connection the article upon 'Regulation of Physicians by Law,' by Harry Eugene Kelly of the Chicago Bar Association should be the Book of Common Prayer of every legislator who has been called upon to vote upon medical bills."—*John B. Morrison.*

"Periodic health examinations and graduate extension courses are the two most important facts before the medical profession this year. The county society is the key to the whole situation and anything that the medical profession does must be done through the county medical society. Neither the American Medical Association nor your state medical societies can do anything right unless the county society does it right."—*Olin B. West, secretary of the A. M. A.*

"In the proportion that county society assumes work in the field of preventive medicine, in that proportion will the inroads of state medicine decrease."—*B. C. Kellar.*

"No society is better than its average member."—*Earl Whedon, New York.*

"The line squall that hit the Shenandoah is only a zephyr compared to the tornadoes that are raging in some of the county medical societies. The component county society has jurisdiction over its members and the time is coming when more care should be taken in selecting its members. Special attention should be given to the quality of its members rather than turning our efforts to a rapidly growing membership, and the county secretary should check up with the state secretary before electing new men to membership."—*Earl Whedon.*

"We should guard against those disreputable nomads who are transferring each day from state to state."—*A. T. McCormick.*

"Our students today are being taught too much science and they are not being taught enough concerning medical ethics, medical economics and the value of membership in their medical society."—*A. T. McCormick.*

"The greatest strength of the A. M. A. lies in its Journal. Every physician in every state should read each copy of the A. M. A. Journal and his own state Association Journal."—*W. E. McVey.*

"When the country doctors do their work better, there will be less use for public health work."—*Orrin S. Wightman.*

"The only regular distinction between the regular physician and the cultist is the capacity for distinguishing disease."—*Haven Emerson.*

"Scientific medicine is right and the only thing that the medical profession has to do is to deliver the goods. Medical societies are weaker now than at any time in ten years and too often they have been allowed to stagnate. Interest must be stimulated in the physicians of the individual county societies by the officers of the county societies. It is the duty of the county society to help its individual members in becoming better doctors so that every individual member in this county society will deliver adequate scientific goods. The work of public instruction must be linked up with the work of clinic instruction in the county society."—*Olin West.*

"The medical profession must be sold on the idea of the periodic health examination. Periodic health examinations represent the highest idealism coupled with the most practical results both for the public and the profession. By wiping out disease and infant mortality, we have increased the longevity of life from twenty to fifty-five years. Now we are aiming to aid in preserving health for the man of middle age by giving him a physical audit at regular intervals. The doctor alone does not benefit from the idea. In the end, the patient comes to him anyway, and often in an incurable stage. The new slogan is 'get disease before disease gets you.' Newspapers have been seeking out the flamboyant and too often passing over such an obviously sensible movement as the periodic health examination."—*Wm. D. Haggard.*

"The problem of arousing the public to take periodic health examinations is not as great as the one of educating the physician to give them."—*John E. Jennings.*

"The Michigan State Society is going to have a periodic health examination week in which all county societies play a big part."—*F. C. Warnshuis.*

"What's all this stuff about examining the well?' asks the physician. It is up to the medical profession to answer this question and the dominant motive of the Maine State Society at present is the education of the physicians themselves so they will be able to give these periodic health examinations."—*B. L. Bryant.*

"Every physician should preach public health examinations in season and out of season. We have intended to make this our outstanding goal for this year. We of the medical profession have curtailed infection, are wiping out destructive disease and made great steps in infant welfare, and as a result have cut down the child mortality rate, but what are we doing for the middle aged man? What are we doing to prevent heart lesions, cardio vascular troubles and the various pneumonias? It is the person of middle age to whom the periodic health examination would be of the greatest benefit. Too often people consider the idea of periodic health examinations is being instituted only to make a great deal of business for the doctors. The better way to look at that is that the doctor is not going to gain patients but the patients are going to gain health. It will be the greatest bond of sympathy between the physician and the patient. Real, thorough-going periodic health examinations will be the death knell to the quack and the quasi-medical man. The lack of knowledge of the quack will be revealed sooner when he attempts to make a diagnosis than by any other method. The periodic health examination is the deadliest blow the regular profession can give to the irregulars. The institution of the periodic health examination is the most far-reaching and stupendous step taken by the medical profession in this century."—*W. D. Haggard.*

"The family physician must prepare himself so he can make these periodic health examinations. There is no mysticism about these health examina-

tions, and if you want to get a post-graduate course in medicine you should read the A. M. A. 'Manual on Suggestions for the Conduct of Examinations for Apparently Healthy Persons.'

Periodic health examinations demand constant interest upon the part of the general practitioner. You must have and after the examination you must give that man a case report and tangible something, for the average man is prouder of his urinalysis than he is of his best golf score."—*Orrin Sage Wightman.*

"Good service on the part of the individual physician in making these examinations is the best advertisement for the periodic health examination. It is as necessary to give as specific advice in hygiene as it is in the administration of drugs."—*Haven Emerson.*

"You can't get away with it any more by patting a fellow on the back and saying, 'Bill, there is nothing wrong with you' for Bill will not be satisfied with anything less than a thorough examination."—*Olin B. West.*

"The physician who does a good job in examining the pre-school child is almost sure to get the child's parents to take an examination."—*B. C. Keller, Director of Lay Education, Illinois State Medical Society.*

"The periodic health examination should be given on the birthday in the birthday clothes."—*A. T. McCormack.*

"The greatest coward in the world is the man or woman who hasn't moral courage enough to face his family physician at least once a year. Persons should be taught to regard their physical resources as scrupulously as their financial ones, to make sure that their health balance is on the right side of the book."—*Orrin S. Wightman.*

BEST VENTILATION FROM OPEN WINDOW

The open window in the schoolroom is favored for ventilation. Recent opinion opposes the complicated systems which have been installed in the past, says an article on the school child's health in *Hygeia*, popular health magazine published by the American Medical Association. Some of the beneficial qualities of fresh air are lost in the elaborate processes of heating, moistening, circulating and recirculating which ventilation devices call for.

Dr. C. E. A. Winslow, chairman of the New York State Commission on Ventilation, makes the following statements regarding the requirements for successful window ventilation:

"In order that the system of window ventilation may be satisfactory, there must be ample heat supply through radiators placed below the windows. The heat supply in these radiators must be carefully controlled either by hand or by thermostat. Window boards or deflectors should be used to impart an upward direction to the incoming air. Panes of glass, one foot high, set in the

window sash, or a deflector made of parallel curved vanes may be used. There must be openings in the inside wall of the classroom, having at least eight square feet in diameter in all, leading into air ducts through which the heated air of the room can find its way out. This is the 'gravity exhaust duct' which must be provided for successful window ventilation. There is no need of a suction fan in this duct, as it works against the success of the system. The ducts should have aspirating cowls on the room and should be provided with dampers to control down-drafts. Without these gravity exhaust ducts, window ventilation is successful only in mild weather when inside doors and transoms are opened.

"The room must not be overcrowded, for overpopulation mitigates against the success of window ventilation. In the average sized classroom there should be no more than 39 second grade children or 30 sixth grade children. There should be a thermometer in the room so that overheating can be avoided. A temperature around 67 degrees F. is most agreeable. Window shades should be so attached as to avoid flapping."

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EDITORIALS

THERAPEUTIC RESULTS WITH CON- CENTRATED SCARLET FEVER ANTITOXIN

George F. Dick and Gladys H. Dick, Chicago (*Journal A. M. A.*, Nov. 28, 1925), have shown that the scarlet fever antitoxin may be refined and concentrated by the method used in the concentration of diphtheria antitoxin, with an increase of potency and reduction in serum reactions. Thus, in the concentrated and standardized antitoxin, the disadvantages of the antistreptococcus serums have been, for the most part, overcome. Since it is undesirable to inject large quantities of even refined serum, a minimum potency requirement has been established. This requirement is such that one therapeutic dose shall not exceed 20 c.c. in volume. The prophylactic dose should be one-half the therapeutic dose. Smaller amounts may protect moderately susceptible persons, but highly susceptible persons require the larger prophylactic doses for complete protection. The antitoxin in all cases has been injected into the muscles on the anterior aspect of the thigh. In early cases, the rash is the most convenient indicator of the action of the antitoxin. If enough antitoxin has been given, the rash will be definitely faded within twenty-four hours, and there will be a marked improvement in the general condition of the patient, especially noticeable in the most toxic cases. The improvement will be associated with a fall in temperature. In a series of 100 cases of scarlet fever, the fifty more severe cases were selected for treatment with antitoxin, and the fifty less severe cases were used as controls. A comparison of the results in the antitoxin series and the control series left no doubt that the antitoxin shortened the course of the disease, and reduced the number and severity of complications and sequelae. Complications occurred in nineteen of the fifty control cases and in only four of the antitoxin cases. The authors have observed that in patients with sinus infections where conditions are favorable to the production and absorption of large quantities of toxin, there is often a high degree of toxemia. On account of the possibility that large amounts of toxin may be absorbed from infected sinuses, they are giving two therapeutic doses of antitoxin to patients with marked toxemia or septic complications associated with

sinusitis. Of thirty-four persons with positive skin tests and scarlet fever streptococci in their throat cultures, following direct exposure to scarlet fever, who were given one prophylactic dose of the antitoxin, fourteen had sore throat and fever at the time the antitoxin was given. In four, a rash was just beginning to appear. None of these thirty-four susceptible persons already infected with scarlet fever streptococci developed scarlet fever. Nor did they develop any complications. In sixty-four cases of scarlet fever in which one therapeutic dose of antitoxin was given on the same day that the rash first appeared, no further administration of antitoxin was required. The rash was definitely faded, in some instances it was entirely gone, and the general condition was improved within twenty-four hours. Otitis media occurred in one case. No other complications or sequelae developed in these patients who received antitoxin on the first day of the rash. Otitis media occurred in five of the fifty-nine patients who did not receive antitoxin until the second day of the rash. And mastoid infection followed the otitis media in one of these cases. No postscarlatinal nephritis occurred in any case in which the antitoxin was given early. With one exception, all the deaths in the antitoxin series occurred in persons who had been ill from six to ten days before the antitoxin was employed. In two instances antitoxin was given to patients who were past the toxic stage of the disease. The rash was faded, and mastoid infections with thrombosis of the lateral sinus and septicemia had developed before they were admitted to the hospital. These patients showed a temporary improvement following administration of the antitoxin, but eventually died. These results show that concentrated scarlet fever antitoxin is of practical therapeutic value. They emphasize the necessity of giving the antitoxin early in the disease before complications have occurred, and before too much damage has been done to the tissues. If administered early in the disease, and in adequate dosage, the antitoxin shortens the course of scarlet fever and reduces the number of complications and sequelae.

THE TEN COMMANDMENTS OF MEDICAL ETHICS

Indiana has produced some outstanding men in the medical profession. Their professional conduct and their accomplishments should be examples for those who have adopted medicine and surgery as a vocation. We could give the names of numerous men who have both graced and honored the medical profession of our state but for our purpose at this particular time we choose to recall to memory Dr. Frank B. Wynn, whose professional attainments were recognized far beyond the confines of his native state, and whose lovable disposition and punctiliously ethical conduct endeared him to all with whom he came in contact. Among his many writings nothing created a greater impression than his composition entitled, "The

Ten Commandments of Medical Ethics," which was printed and beautifully embellished in colors at the suggestion of friends for framing and use as a decorative piece on the walls of the offices of medical men. We regret to admit that in this age, when so many medical men think only of commercialism and the intrinsic rewards from the practice of medicine, too few of the medical men secured a copy of Dr. Wynn's "Ten Commandments," and for the benefit of the younger generation who may not have seen the commandments we republish them here. We already have stated that we ought to open most county medical society meetings with the reading of "The Principles of Medical Ethics," and the admonition on the part of officers that all members should follow the code of ethics. Another suggestion is that the medical men of Indiana would do well to place in their offices in a conspicuous place the "Ten Commandments" as an evidence of faith and practices.

THE TEN COMMANDMENTS OF MEDICAL ETHICS

I. Reverence and Responsibility.

Remember the Creator in the days of thy professional youth. Bow reverently before the wondrous human body, sick or well, as thou wouldst before a sacred shrine, conscious of thy high duty; resolved to serve to the best of thy power, whether the patient be white or black, prince or pauper, saint or degenerate.

II. Historic Appreciation.

Honor thy father and thy mother. Likewise give praise to the fathers in medicine whose rich heritage of scientific and clinical truth has been handed down to thee through centuries of patient toil. Hold fast to that which is good, but let not the prejudices coming out of the past, blind thy vision to the newer truths of medical advancement.

III. Keeping the Faith.

Thou shalt not worship the graven images of false practice—of avarice and selfishness which eat at the very heart of medical idealism; of clever artifice or brazen quackery which knowingly deceives; of erratic isms and cults which tell but half truths, leading the ignorant and unwary astray.

IV. Inviolable Confidences.

Thou shalt not disclose the secrets confided to thy keeping by trusting patients, unless they be of criminal or treasonable import. Nor shalt thou abuse the intimacy granted to thee by women, which becomes a professional and moral obligation thou shouldst hold inviolate.

V. The Sanctity of Life.

Thou shalt not hazard life unwarrantably. Neither shalt thou shrink before the obvious perils of duty when life is at stake. The unborn shalt thou not destroy, except after due consultation it is deemed advisable for the larger saving of life. Suffer not death to come through neglect in the

routine care of the sick, nor from failure in reading, study and counsel, to gain the greatest benefit for the patient.

VI. Professional Co-operation.

Thou shalt not bear false witness against a worthy professional brother, but seek ever to protect his reputation from calumnious attack by misinterpreting laymen. Of thy knowledge give him unstintingly, counseling and co-operating for medical progress.

VII. Gentlemanly Conduct.

Thou shalt not prate of cases, nor countenance unseemly boasting of thy achievements in the lay press. Always a gentleman, let thy conduct be reserved but without cowardice; courteous but without flattery; dignified but of warm heart; tender in ministration but firm in command; clean of body, speech and mind.

VIII. Honesty in Business.

Thou shalt not steal; neither shalt thou make extortionate charges nor deceive by the secret division of fees. Let thy service be worthy of hire for which exact fair compensation, but by open methods, with conscience void of offense toward thy fellowmen.

IX. Obligation to One's Own.

Take heed of the morrow for the sake of thine own flesh and blood. Therefore shalt thou keep orderly accounts, collecting from the full-handed just recompense for service rendered. To the poor and to the families of deserving colleagues thou shouldst account it a privilege to render faithful attention.

X. Personal and Public Service.

Remember thou art thy brother's keeper—physically in the measures advised for the prevention, alleviation or healing of disease; spiritually in the cheer thou bringest to heavy hearts and the courage thou givest to halting steps. So walking upright before man, mayest thou show thyself approved unto God. Thus journeying toward life's end, if not singing with the Psalmist, "My cup runneth over," thou wilt at least be sustained by the reflections of "A workman who needeth not be ashamed."

THE MEDICAL FOLLIES

Under the above title Morris Fishbein, M.D., editor of the *Journal of the A. M. A.*, has published a book of 225 pages in which he discusses in a comprehensive way the rise and fall of cults, cure-alls, and the practices of those who are capitalizing the ills of mankind, giving special attention to homeopathy, birth control, antivivisection, rejuvenation, physical culture fads, the Abrams fake, and several other forms of quackery. The book is exceedingly interesting as well as instructive, as it analyzes the conditions responsible for the development of the more conspicuous medical follies and exposes their inconsistencies and fallacies.

The author starts out with the general proposition that in times of great stress, pain or sorrow, the human being is apt to discard all that he has learned of science and of truth and resort to incantation and to prayer; he is ready to leap at any cure-all or suggestion that may be offered to him for the alleviation of his travail, never stopping to inquire as to the motives of those who would heal him or as to the basis on which their claims may rest. Thus have been born various healing cults, some of which have had a brief career and passed into the limbo of forgotten things, while others are still continuing, being maintained by the credulous, and, as the editor well says, "Learned persons with one-track minds always can be found who will endorse the most ridiculous hokus-pokus in matters of health." Clergymen especially are easy dupes, although university professors, governors, and members of congress not infrequently are found upholding and patronizing the rankest kind of charlatanism. Even our government is much more ready to appropriate money for the control of disease among pigs, cows, and horses than among human beings, and, moreover, as the editor points out, a horse never gives a testimonial—hence, perhaps the term "horse sense." The editor goes so far as to say that one is frequently at a loss to know just how far any apostle of cultism believes in himself and in his delusion, and just how far he is willing to take profits and a chance on the sincerity.

The author traces the growth of osteopathy from the time of old man Still down to the present time, and points out that while the modern osteopath still clings to the Still theory that the primary cause of every disease is some interference of function caused by a dislocation of some of the bones of the spinal column, he attempts to embrace a good deal of modern medicine and therefore combines electric treatment, water treatment, massage, anesthesia, surgery, and the prescribing of narcotics and liquor, thus going against Still's claims that drugs were not only of no value in the treatment of disease but even that they were responsible for most disease. A considerable number of the osteopaths have adopted the extraordinary fakery of Albert Abrams as part of their diagnostic and therapeutic armamentarium. As an evidence of the changing faith in some of the osteopaths, the incident is quoted in which the son of an osteopath suffered for four days with diphtheria before a medical man was called in who diagnosed the case. Later the father, an osteopath, said, "I do not understand antitoxin: I can't understand how a poison can cure disease or neutralize poisons, yet when the death rate is cut from fifty per cent to ten per cent, isn't it best to be a physician first and an osteopath second?" This case is an exposure of the fallacy that an individual may be permitted to practice a single branch of medicine with safety without first undergoing complete instructions in all the fundamentals of medical

science. The followers of every pseudo-medical cult or false system of healing fall down when confronted with the established proof of the diagnosis and treatment of infectious diseases. It should require no extraordinary mental process for anyone to see how serious the manipulating treatment of the osteopaths and the chiropractors is for a child that is beginning to strangle from the effects of a diphtheritic membrane in the larynx, or when the life of a woman is being slowly sapped by an internal tumor, or when a man is beginning to show the first signs of the ravages of syphilis.

Chiropractic may be considered as an off-shoot of osteopathy, and the explanation offered by the chiropractor to account for all diseases is that pressure on a nerve as it emerges from the spinal column keeps the nerve from transmitting the energy that makes the wheels of the body go round properly. The theory has no anatomical basis, as professors of anatomy have dissected thousands of dead bodies and have been unable to find any nerves pinched or pressed as chiropractors say is the case. X-rays have been used to search for the dislocations which the chiropractors assert are present, but the dislocations can not be found. Moreover, experiments have shown that a force of twelve hundred to thirteen hundred pounds, while it will fracture one of the spinal bones, will not dislocate it or cause it to press on the spinal nerves. Thus the fundamental dogma of chiropractic that disease is caused by pressing on nerves is simply a complete misrepresentation of the demonstrable facts. Any chiropractor who tells an invalid that he is ill for that reason is either willingly deluding the patient or deluding himself.

The fact of the matter is that chiropractic is a commercial proposition, and even the so-called schools of chiropractic encourage those possessing even less than a common school education to take up chiropractic because they can become doctors of chiropractic in a very limited time and make big money at it. The neurocalometer of the chiropractors is a device to impress the patient, and is a fake in two ways, in that the chiropractors who purchase it, if honestly believing in it, are deluded, and the patient upon whom it is used is swindled. Even the founder of chiropractic admits that chiropractic is a business and not a profession, and there is an abundance of evidence to prove that it has been commercialized to the fullest extent, even to the defrauding of the disciples themselves by the fountain-head of the cult who palmed off upon them a device known as the neurocalometer, rented (and not sold) at prices varying from five hundred dollars to three thousand dollars, and represented as an instrument that when put upon the spine will tell the chiropractor where to do his manipulating.

The Abrams electronic reaction is another quackery that is exposed by Fishbein, and as an

evidence of how an erstwhile reputable, intelligent practitioner of medicine may fall from grace, it is pointed out that Abrams was vice-president of the California State Medical Society in 1889, and was president of the San Francisco Medical Chirurgical Society in 1893. He even was professor of pathology of the Cooper Medical School in San Francisco from 1893 to 1898. It is but natural, therefore, that a theory propounded by him would receive attention and even recognition on the part of those who are not given to analyzing theories and their practical application. Abrams was shrewd enough to commercialize his theories and practices, and to gain the desired publicity in the daily press. While medical men openly denounced the Abrams treatment as pure fakery, it remained for physicists, electrical engineers, and such fearless publications as *Ford's Independent* and the *Scientific American* to show that Abrams was practicing pure quackery and that his theories were without reason. However, except for a few gullible physicians and a large number of the members of the cults, particularly chiropractors, who still are using the pseudo-scientific appliance for financial gain, the Abrams fake has gone into the discard.

The ridiculousness of certain health legislation is pointed out by reference to Colorado's law which requires that in places where food is prepared, cuspidors for the use of employees, customers or other persons should be provided wherever necessary, and each cuspidor shall be washed out daily with a disinfectant solution. Thus Colorado, instead of attempting to educate the public concerning the dangers of expectorating where food is lying about, promotes the habit by supplying facilities for it. Think of the absurdity of North Dakota's law which provides that hotels charging fifty cents a night or more, always shall change sheets and pillow cases after a guest departs. Obviously the one who pays less than fifty cents is apt to be less cleanly and to leave more for the next occupant than is the one who is able to pay more.

Nebraska, Wisconsin and many other states have laws which forbid physicians to split fees. The American College of Surgeons requires each of its members to take an oath that he will not do so. Fishbein points out that a man who wants to split fees will not hesitate to violate a law that is easier to flout than the Volstead act, or to break an oath required by any surgical organization, and he significantly says, "How many men, indeed, ever have been penalized for violating that law, and how many have been dropped from the surgical organization for forgetting their oath?"

A justifiable stab at the Sheppard-Towner act is taken by saying that maternity and infancy legislation is intended to attract the growing women's vote, but that wherever such legislation has been enacted and the appropriations connected therewith put to use, the maternal death rate has

not been affected appreciably. Thus it will be seen that the passing of our laws is not based upon sound logic or the established facts of years.

Among many false prophets of health, Fishbein exposes the fallacies and commercialism of the physical culture specialists like Bernarr Macfadden, and he takes a justified rap at maudlin sentiment that keeps up antivivisection and anti-vaccination agitation, and the vagaries of birth control. The venality and cupidity of many representatives of the lay press in connection with medical problems and practices also is discussed, and he winds up with the assertion that the function of the physician is to range himself on the side of life by seeking to establish those conditions which are most favorable to life. These conditions he establishes through the employment of all those agencies which scientific experience has taught him, have the power to modify the actions of human tissues. These agencies include not only the drugs and biologic preparations of *materia medica*, but also heat, cold, massage, electricity, water, sunlight and the mental suggestion of therapeutics. As one looks over the accomplishments of the past one need feel no pessimism regarding the future of scientific medical treatment. If for no other reason than in the interest of suffering humanity and in the preservation and prolongation of health, medical men have a duty to perform in exposing the fallacy, inconsistency, and quackery of those who prey upon the ills and misfortunes of the public. To that end the *Medical Follies* serves a distinct purpose, and we commend the book to medical men as an avenue through which those who are capitalizing the ills of mankind may be exposed.

VACCINE TREATMENT OF ROCKY MOUNTAIN SPOTTED FEVER

The United States Public Health Service, one of the duties of which is to investigate diseases of man with the ultimate purpose of devising means for prevention and cure, recently has announced the results of experimentation which lead to the belief that a most unusual vaccine has been produced which may protect human beings against Rocky Mountain spotted fever.

"Rocky Mountain spotted fever," sometimes called tick fever, which occurs principally in certain northwestern states, has been the subject of investigation and experimentation for a number of years," says Surgeon General Cumming. Little was known of the disease before 1902. It has an exceedingly high fatality rate; in some localities about seven patients out of every ten die.

It is a fatal disease when contracted in the laboratory. Assistant Surgeon McClintic, an officer of the public health service, contracted Rocky Mountain spotted fever while engaged in experimental studies in Montana and died in line of duty, as did also Laboratory Assistants William E.

Gettinger, and George Cowan—all martyrs to science.

The disease is transmitted by ticks. A peculiar feature of the virus which produces this fever, a feature discovered by public health service investigators, is that it passes through developmental phases in the tick—the intermediate host—whereas it has no such phase in man or animals.

At one period in the life of the tick, the virus of the disease as obtained from the ticks will not, when inoculated, produce the disease in animals. This period corresponds in time with the hibernating period in the life of the tick, or at least to the period of its life in which the tick takes no food. At another stage of development, corresponding to the feeding time of the tick, the virus is highly infective and virulent.

In 1923 and 1924, the investigators prepared a protective vaccine made by extracting and attenuating the virus from macerated infected ticks during the stage at which the virulence of the virus was highest—a period following the ingestion of animal blood by the tick; and this vaccine was found to protect laboratory animals from the disease. During the present year these experiments were continued and the vaccine was tested on monkeys and man. It was proved that it protects guinea pigs, rabbits, and monkeys, and it is now believed to have modified the severity of the disease in the case of a man who contracted it after having been vaccinated. The man was engaged in dipping cattle in Montana—an occupation involving exposure to the infection. Together with several other men, he was vaccinated late last spring, and, sometime afterwards, he contracted the fever. This case was exceedingly mild, though it is usually severe and highly fatal in that locality. None of the other vaccinated men contracted the disease.

Should this vaccine fulfil the expectations confidently hoped for, another advance will have been made along that high road of preventive medicine known as "immunology," toward the goal set by Pasteur when he stated that it was within the power of man to cause all germ diseases to disappear from the world.

IN a malpractice suit in an adjoining state the prosecuting attorney made a point of the fact that the defendant doctor had set a broken leg without having "x-ray pictures" made either before or after services were rendered. He evidently scored a point with the jury when he said that any doctor who in this day and age attempts to care for a patient with even a suspected fracture of bones without having an x-ray examination is guilty of gross negligence which must be considered as malpractice. No doubt many physicians hesitate to put patients to the expense of roentgenograms, but it is quite within the range of protection for both patient and physician to have this work done when there is reason to suspect that a fracture may exist.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

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Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve YOU.

DUES! Dues!! Dues!!! Have you paid them? If not, why not?

AMONG your New Year's resolutions adopt and live up to one that puts you on the list of paid-up members of the Indiana State Medical Association.

Now that osteopaths and chiropractors have endorsed the World Court, it will be safe for the United States senate to vote favorably upon the project.

AN enterprising firm now is furnishing motion pictures of medical facts and the films may be rented. This offers an opportunity for a very graphic method of instruction and is highly commended.

NEW YEARS generally is conceded to be the time for turning over a new leaf, or making resolutions for betterment of some kind or other. Why wait until New Years? If resolutions for betterment are necessary, they are appropriate at any time of the year.

OUR county medical societies should remember that the Bureau of Publicity of our State Medical Association is prepared to furnish speakers for lay audiences as well as for medical societies. If any county medical society secretary is at a loss as to how to get up a program that will bring out an attendance of medical men he should lose no time in getting in touch with genial Tom Hendricks, the executive secretary.

THE United States Public Health Service recently has issued a statement to the effect that syphilis is the cause of a great deal of heart disease and they refer to the statement of Col. Sir Leonard Rogers, representing the government of India, who says that practically the whole of heart disease in India is due to syphilis, and he concludes that the eradication of syphilis would reduce heart trouble to negligible proportions.

NOTHING is quite so incongruous and inconsistent as a financially "down and out" author offering to the public a book on "Success, or How to Get Rich," and yet that is exactly what has occurred. It reminds us of a little brochure, written largely for commercial purposes, that was entitled "How to Cure Tuberculosis," and yet the author of it was tuberculous when he wrote the book and finally that disease was the cause of his death.

THE Council held its midwinter meeting on December 29th, with a full attendance. The session was continuous from ten in the morning until four-thirty in the afternoon, and a large amount of business was transacted. The increasing activities of the Association demand careful and judicial attention and it is a wise provision of the constitution that delegates matters requiring deliberative action to a Council that can give the time and thought necessary in order to avoid snap judgment.

THE *Indianapolis News*, perhaps the most prominent newspaper in Indiana, regularly publishes the health articles sent out by the Bureau of Publicity of the Indiana State Medical Association. Another commendable policy followed by that newspaper is the rejection of all medical advertising, and such a policy puts the quacks and medical pretenders at a disadvantage for without publicity they cannot live. The example set by Indiana's leading newspaper could well be followed by other newspapers of the state.

OF course medical men are pleased to have the narcotic tax reduced a couple of dollars per year, but of more importance is the question of dealing fairly with the members of the medical profession by having the expenses incident to attendance upon medical meetings and in doing postgraduate work deducted from income tax reports. The butter and egg man and the plumber can go to conventions and charge the expenses off the income tax, but a poor doctor is denied that privilege. What a fine example of injustice and partiality!

IN the *Medical Follies* the statement is made that it is possible for any person in the state of Virginia to obtain from the state legislature for the small sum of twenty-five cents a card certifying that he is white. Inasmuch as no method is known whereby the admixture of negro blood with white in the human being may be detected with certainty, and so far as known science offers no aid in detecting the presence of the negro strain in the blood, it is obvious that the card certifying that a person is white may be very misleading.

IF anyone thinks that the United States is not coming to the fore as a medical center let him inspect the rosters of our medical teaching institutions and note the number of foreigners who are

in this country for the sole purpose of getting a medical education or doing postgraduate work. Among them will be found a considerable number from Japan and other countries in the Orient. Already there is evidence to show that our little brown brothers from far off Japan are as progressive as any other race in the search for scientific truths.

THERE is a rather general movement on the part of better business bureaus of the North to suppress the extravagant advertising concerning various forms of investments in Florida that heretofore have been occupying the columns of our daily newspapers. Among the most flagrant abuses of the advertising privilege is the guaranteeing of eight per cent or more upon investments when, as a matter of fact, there is nothing back of the guarantee. It is just as well to steer clear of get-rich-quick schemes and, in particular, those that come from Florida where over-inflation and exaggeration is the rule rather than the exception.

OUR readers may be familiar with the condemnation of the Bernarr Macfadden physical culture enterprises published a short time ago in *Hygeia*, the lay health publication issued under the auspices of the American Medical Association. The Macfadden enterprises were exposed, but it seems that there are other objections to the Macfadden exploitations and one of the most potent arguments is the refusal of the Ohio Securities Commission to permit the selling of any of the Macfadden stock in Ohio. We are not quite sure that Macfadden has been selling his wares in Indiana, but it is quite probable that he is doing so, as Indiana stands for most anything.

THE Hancock County Medical Society just barely made the grade as a 100 per cent paid up organization for 1925. C. H. Bruner, secretary of the county society writes: "Thus is completed the collection of dues of every active physician who is eligible for membership in the Indiana State Medical Association in this county. I hope to have all the 1926 dues collected early in the year. With increased interest in the society I think it will be easier." Fine work, Hancock county, for this puts you among the chosen "all paid up counties" of the Association. Why shouldn't we have every county medical society paid up in full by February 1st?

IT would be well for medical men to remember that the pseudo-medical cults are cultivating the acquaintance and soliciting the influence and support of lay organizations and in particular the teachers in our public schools. It is rather surprising to note that the average populous community will have one or more school teachers who actually are proselyting for chiropractors. This means that our medical men, and in particular

our Bureau of Publicity of the State Medical Association, should take an active interest in the question of educating the school teachers so that they will not be led astray by the ignorance and pretense of the members of any cults.

OFFICERS of county medical societies will be interested in knowing that the subject of periodic health examination was discussed and demonstrated at a recent meeting of the Kosciusko County Medical Society, and in a way that should be helpful to those who might have been a little undecided as to the technic to be employed in examining a supposedly healthy individual. A man, conditions of health unknown, was brought in as a subject and the speaker of the evening, a well known physician of Indianapolis, pursued the plan recommended by the American Medical Association. The demonstration proved exceedingly interesting and instructive. It is an example that could be followed with profit by other county medical societies.

THERE are altogether too many doctors trying to treat symptoms rather than the conditions which produce the symptoms. A patient suffering from appendicitis or gallstone colic is relieved by a dose of morphine, but the cause of the pain has not been removed. Many people are talking glibly about having high blood pressure and taking medicine for it, but with no instructions as to rest, diet, and the elimination of the foci of the infection that is causing the high blood pressure. It would be a good thing for the medical profession and the long suffering public if there were more physicians who were sold on the idea of making more thorough examinations and more exhaustive analysis of abnormal conditions as a cause of some of the symptoms for which they are prescribing in an empirical way.

SOME ministers openly condemn Christian Science or what is sometimes called Christian Healing, but for the most part they handle the subject with gloves for fear of hurting the feelings of some communicant who has a Christian Science leaning. However, we join with the *Cincinnati Journal of Medicine* in praising the Reverend E. C. Cowles, who at the triennial convention of the Episcopal Church recently held at New Orleans, denounced "healers" who use the church and any phase of Christian religion for personal gain and are exploiting it to advance their own interests. He points out that Christian Scientists care nothing for facts, but are proficient in the art of playing on the emotions and ignorance of the people, and debauch religion by the practice of fraud and hypocrisy.

It seems superfluous to remind our members that Association dues should be paid in December, and certainly not later than in January, and yet, know-

ing how some doctors procrastinate we feel justified in giving them a reminder. The dues are delinquent on February 1 and on and after that date those who are not in good standing in the Association are denied the benefits of the Association. It may not be amiss to remind the members that it has not been so long ago that a doctor put off paying his dues until after February 1 and while he was delinquent he rendered some surgical services that subsequently formed the basis of a malpractice suit. According to the rules of our Association he was not entitled to the medical defense features and, not having any medical defense insurance of any kind, he was obliged to pay several hundred dollars out of his own pocket in defense.

"A PERSON who leads a sane, normal, healthy life should go to the physician for public health examinations on seventy-two occasions from the time he is born until he is sixty-five years old," said Dr. Haven Emerson at the meeting of the Conference on Public Health Examinations of Apparently Healthy Persons at Chicago in November.

The period of life in which these examinations should be taken according to the chart prepared by Dr. Emerson follows:

Prenatal Care. The mother should go to a physician four times to be examined.

From 1 to 2 years old—10 to 12 examinations.

From 2 to 5 years old—Once every 6 months.

From 6 to 16 years old—Once a year.

From 16 to 25 years old—Once a year

From 25 to 45 years old—Once every 2 years.

From 45 to 65 years old—Once a year.

From 65 on —Once every 6 months.

THE Sheppard-Towner bill will come up for re-enactment this year. Forty-three states, including Indiana, have accepted the provisions of the law. Some prominent states like Maine, Connecticut, Illinois and Massachusetts have not accepted the provisions of the law. Much has been written concerning the benefits of the law but as yet we have not learned that the child and infant morbidity and mortality rate has been bettered as a direct result of the activities of those who are carrying out the provisions of the law. The Sheppard-Towner bill provides education and nothing else, but it is questionable if that education is any addition to what is given by medical men who always have devoted themselves to questions pertaining to maternity and child welfare. We do know that the Sheppard-Towner bill has cost the taxpayers several million dollars, and we believe that the ones who have profited most are the army of office holders who pull down salaries in carrying on the work provided for by the law.

MORE and more the work of the Publicity Bureau of the Indiana State Medical Association is receiving favorable notice throughout the mid-

west. That the value of this work, which is very new in its conception, has been recognized is shown by the fact that letters have been received from many state associations asking how the work of the Indiana bureau is being conducted. In order to gain this information two representatives sent by the Wisconsin State Medical Society made a special trip to Indianapolis to attend the Publicity Bureau meeting on December 2. These visitors were George Crownhart, executive secretary of the Wisconsin State Medical Society, and Fred L. Holmes of the Holmes Newspaper Syndicate, who is known in the journalistic world as one of the leading newspaper writers and magazine contributors of Wisconsin. The Wisconsin Medical Society hopes to put out its first publicity article the first of the year. Mr. Holmes is to co-operate with the physicians of the state in the preparation of these articles.

HEALTH talks over the radio seem to be rather popular with some broadcasting stations, but we notice that the stations are not very discriminating as to whom they invite to deliver the talks. In consequence we not infrequently hear some chap broadcasting the announcement that chiropractic is a great science and has done wonders in relieving people of any and all kinds of ills and physical abnormalities, and one night during December some chap, who ostensibly was giving a public health talk, condemned the use of antitoxin in diphtheria because, as he said, its efficacy and value had been questioned by high authorities. Probably the so-called authorities were Christian Scientists or members of the League for Medical Freedom, or mayhap they belong to that delectable class known as antivaccinationists. Anyway, there should be some method of censoring these talks over the radio. If we are to have health talks over the radio, by all means let us have them under the auspices of some such organization as the Department of Health of the state of New York or the Gorgas Memorial Institute, both of which are giving some really valuable and trustworthy radio health talks.

THE following incident, thoroughly authenticated, has come to our attention. A prominent business man became ill with discomfort in the abdominal region and he called in a chiropractor who had treated him for some minor ailments. According to trustworthy evidence the chiropractor proceeded to manipulate the spine, and churn or massage the abdomen where the discomfort existed, with the result that the patient became worse, was taken to a hospital where a surgeon opened the abdomen and found a ruptured abscess of the liver with the peritoneal cavity filled with pus. The patient lived but a few hours. If some of these cases were submitted to a coroner's inquest and the true findings made known, it is entirely probable that the public would appreciate

the dangers of permitting men with no medical training to treat the human body. It is quite true that a little massage, under the guise of chiropractic or anything else, may not be injurious, but cases such as reported offer ample evidence of the possible dangers of permitting uneducated and untrained men to assume the burden of responsibility of making a diagnosis and determining whether massage or surgery is indicated.

IT is unfortunate that public health matters in a very large measure are controlled by the vagaries of politics. In the fall elections there were some radical changes in the personnel of municipal offices, and in consequence some radical changes in the public health service as a direct result of the appointive power that resides in a partisan administration. In some cities and towns capable and efficient health officials have been continued, though in others politics has brought about the appointment of men without ability or training. We have been informed, though unable to verify the statement, that in one Indiana town a chiropractor who dabbled in politics and thus has some influence was considered very seriously by the incoming mayor as an appointee for the position of city health officer. Civil service reform has done much to improve governmental activities and it well could be applied to state and municipal government, and should be applied to our public health departments. Capability and efficiency should be the first consideration. When a mayor appoints as health commissioner a man of little or no standing in reputable medical circles, that community is going to suffer the consequences.

PERIODICAL physical examination is the subject of a leading paper and an editorial in the *Journal of the A. M. A.* under date of November 21, and medical men not only are advised to encourage periodic health examinations by individual physicians but to steer clear of association with those commercial institutions that are acting as a middle man and capitalizing the services of the physician for their own profit. Most of these commercial organizations boast that they have the support of the medical profession of the country, and as an evidence of this they publish the names of prominent medical men who are or have been identified with their institutions. The American Medical Association at the 1925 session at Atlantic City condemned in unmistakable language this introduction of a commercial feature into the periodic physical examination service, and recommended that this service should be rendered direct and that payment for the same should be direct from patient to physician. The *Journal of the A. M. A.* editorially says, "It is time that the medical profession opposed vigorously the commercialization of medical practice. The greatest opposition can be achieved by the complete assumption of the

task of periodic physical examinations by individual physicians as an organized medical profession."

A DISTINGUISHED group of medical men, including presidents and ex-presidents of the A. M. A. and many other medical organizations, have joined in condemning "frozen endowments," or the giving or bequeathing of funds for restricted purposes that may become antiquated or obsolete in the passing of time. The suggestion has been made that the elasticity of the community trust plan for the administration of permanent funds for public purposes should be commended as offering a means of forestalling the absoluteness of endowments. The passing of time and changing of conditions often defeat the purpose of the giver. There are many instances in which funds have been bequeathed for the specific purpose of aiding in the maintenance and support of some institution or some particular feature of an institution, and after the death of the donor the institution for one reason or another has gone out of existence or its character changed in such a way that technically the endowment cannot be touched. It is to do away with such episodes, and make it possible for appropriate use of bequests and donations that the community trust plan is advocated. The community trust offers a practical way of administering funds which are designed for the good of the public and it will tend to make benefactions more effective and less haphazard.

A DAILY newspaper in one of the larger cities of the state has been accepting paid advertising from a member of the pseudo-medical cults in which, among other fallacies and inconsistencies, the use of antitoxin in the treatment of diphtheria and toxin antitoxin as a preventive of diphtheria is condemned. As an argument, the writings and opinions of some prominent public health officials and medical men are misquoted, misinterpreted, and misapplied. In all probability such opposition to scientific medicine is given scant attention by the majority of intelligent readers, but the general harm to a large class of ignorant and easily deluded people is great, for it is quite possible that some people may be led to disbelieve in demonstrated facts and innocent children pay the penalty through death from not only a preventable but a curable disease. The surprising feature in connection with this matter is that any newspaper editor or proprietor will aid in furthering the interests of opponents to established facts and trustworthy recommendations from Federal, state and municipal public health authorities. A newspaper is supposed to be educational as well as a news conveyor, and its editor and proprietor should be sufficiently conscientious to avoid publishing anything that may lead to such harm as the unnecessary loss of life. Many of the better class of newspapers now are refusing medical advertising of every description, and all could well follow

that policy with benefit to the public. Quackery and charlatanism of every description lives and thrives upon publicity, and whenever the public press is denied to the quacks and charlatans, quackery dies.

Don't forget that the pseudo-medical cults are active at all times in efforts to secure legislation that will be beneficial to them. They endeavor to interest representatives of the clergy, labor organizations, and the legal profession. They secure some assistance by passing out "plums" such as retainer fees to influential lawyers and gratuities or services to clergymen. They also are active at the primaries in the selection of candidates for office who will be favorable to their cause. If the educated and well-trained members of the medical profession ever are going to get anywhere in protecting the public from the incompetency of the pseudo-medical cults and medical pretenders of every kind they will have to pay more attention to politics. Of course it is distasteful to make a bid for political favors, but it should be remembered that the men who make our laws, even though they are honest in their convictions, not always are familiar with the merits of the cause upon which they are called to cast a vote, and it is up to the medical profession to make an effort to secure representatives in our law-making organizations that know the facts and appreciate the dangers to the welfare of the public in legalizing the practices of those who are uneducated and untrained in all that pertains to the body in both health and disease.

A RECENT number of the *Journal of the A. M. A.* editorially quotes an author to the effect that the value of intravenous medication is questionable as compared to other modes of treatment and that the burden of proof rests on those who assert that intravenous injections are not injurious or dangerous.

It is quite true that enterprising manufacturers and enthusiasts in the medical profession have recommended an extended list of drugs and biological preparations for intravenous medication, and that in all probability some of these preparations have been used injudiciously as well as without rhyme or reason, to say nothing of being introduced without proper precautions. Up to the present time we have not heard of any unfavorable results or even fatalities following the judicious use, under appropriate precautions, of drugs or biologic preparations of approved manufacture that are introduced intravenously for the purpose of quickly and effectually sterilizing or favorably altering the blood stream. Like every other new procedure intravenous medication has been misused and abused, but that does not alter the fact that the procedure has a definite advantage over any other form of treatment in the production of favorable clinical manifestations in certain

pathologic conditions. We believe that the Council on Pharmacy and Chemistry of the A. M. A. is quite justified in taking a conservative attitude toward the recognition of the value of intravenous medication, but they should go slow in condemnation until they have utilized the experiences and results of a large number of clinicians who are employing the procedure with great satisfaction and who analyze the results with sufficient care to justify a trustworthy opinion concerning the subject.

WE hear much comment concerning the financial rewards that have come to Red Grange, the football star. It is reported that within four weeks he obtained as his share of gate receipts from football games, from his moving picture contract, and for permission to use his name in connection with various enterprises, a half million dollars, which he hopes very soon to double. A noted newspaper writer says that this is merely an evidence that when you do something a little better than anyone else can do it you are sure to reap a reward for your talents. The statement should have been qualified to apply to those who amuse or entertain the public. Douglas Fairbanks, Charlie Chaplin, Jack Dempsey, Babe Ruth, on down the list to the champion pie eater, all commercialize their talents and receive handsome rewards from a public that pays well to be amused or entertained, but there the matter ends. Few of the great statesmen, scientists, inventors, explorers, and literary men and women, the real thinkers of the world, who have given us something of imperishable value, have had pecuniary rewards that were at all comparable with those that have come from prize fighting, football kicking, slapstick comedy or screen acting. This does not argue that one should not strive to do something a little better than anyone else, and though the reward may not be in dollars and cents it may be in respect and appreciation of fellow men and one's own satisfaction, even though, as one patient, tireless and poor worker remarked when decorated with numerous honor medals, "These are all appreciated, but do not satisfy the cravings of a hungry stomach." However, it is a recognized fact that riches do not bring happiness, and perhaps after all the silent thinker and worker in his efforts to discover new truths or in his attempts to do something a little better than anyone else is happier than those who acquire riches from whatever source, and he has the satisfaction of knowing that there will be no pocket in the shroud for any of us.

At the Marion session the Indiana State Medical Association passed a resolution endorsing an effort to determine whether high school athletics are ever injurious to our boys and girls engaged therein. The resolution very clearly points out that a study of the question with a view to arriving at some trustworthy conclusions is con-

templated. Unfortunately some of the newspapers of the state misinterpreted both the meaning as well as the intent of the resolution and at once heralded the announcement that the Indiana State Medical Association had condemned high school athletics, which of course is not true. However, the agitation probably will bring about some beneficial results, for at the midwinter meeting of the Council of the Indiana State Medical Association a representative of the high school athletic association presented a plan whereby the question of the harmful effects of high school athletics can be studied with a view to determining the facts, and he frankly admitted that his attention had been called to some unquestioned examples of physical harm done by too strenuous application to high school athletics to say nothing of an unfavorable effect upon the scholastic grades. During the discussion of the subject it developed that several of the councilors had detected physical defects in members of basketball teams, that seemed to have been brought on or at least aggravated by the strenuous efforts required in maintaining the prestige of the team. These physical defects consisted in myocarditis, hyperactive thyroids, and some cardiovascular renal abnormalities. It was pointed out that the average coach draws far more salary than the average principal of a high school, and that in his zeal to produce a winning team and so retain his prestige as a coach he may become forgetful as to the limitations that should be placed upon the hours of practice and the number of games to be played. There is also to be considered the carelessness or the incompetency that may exist among those who are entrusted with the physical examination of the athletes. Therefore, a careful analysis of the whole proposition indicates that the investigation proposed by the resolution adopted at the Marion session of the Indiana State Medical Association is quite in order, and it should be undertaken not with the idea of abolishing or condemning high school athletics but rather with the distinct idea of having high school athletics very carefully supervised.

IN this number of THE JOURNAL we publish a report of the annual session of the American Public Health Association held in St. Louis last October. The report has been furnished through the courtesy of Dr. W. F. King, the state health commissioner of Indiana. We particularly call attention to the resolution concerning the ventilation of school rooms in which fresh, untreated outdoor air admitted at the windows, and gravity exhaust ducts for removing vitiated air from near the ceiling, is advocated as the most satisfactory method of school room ventilation. What a slap this is at the expensive systems of forced ventilation, generally not working when needed most, that have been installed in so many of our school and other public buildings. Isn't it a

fact that forty years ago when we knew nothing about expensive systems of ventilation, and windows and cracks were the only means of ventilation, we had fewer respiratory troubles among our school children than we do now? We are not opposing real progress in any line of endeavor, but there has been more buncombe in connection with this subject of ventilation than in most any other enterprise having to do with the health and comfort of our people.

Another interesting subject of discussion at the session in St. Louis was that pertaining to the carrying of infection of communicable diseases by visiting nurses. A survey in New York City seems to prove that no single case of infection as a result of the visiting nurse going from one house to another, and in the course of a day's visits seeing several varieties of communicable diseases, has been reported. The explanation of this is that the visiting nurse who uses the recognized precautions will not transmit communicable diseases any more than a doctor transmits them, and no one seems to question the propriety of a doctor going from houses where there are communicable diseases to other houses where such diseases do not exist. The properly trained nurse will be just as careful as the properly trained doctor, and aseptic cleanliness is the preventive.

An important action of the Association was that which recommended that milk ordinances be uniform for various municipalities, and that the standard shall be such as to offer reasonable protection to the public, though no recommendation is made as to what that standard shall be.

We note that our correspondent does not refer to the address by one of the members which favored a new doctor in each community where a health officer is needed, to be known as a doctor of public health, and recommending that such doctor, though he may not have taken the full course of medical instruction, be permitted to practice medicine. This matter was referred to in the December number of *THE JOURNAL* in connection with the resolutions passed by the Chicago Medical Society in which objection is made to any move on the part of the American Public Health Association which may express a desire to replace physicians as health officials by laymen with public health licenses. In this connection it is well to keep in mind the fact that a layman was president of the American Public Health Association during 1925, and the incoming president is not a medical man.

DEATHS

JOHN L. MARSH, M.D., Brownsburg, died December 4th, aged seventy-four years. Dr. Marsh graduated from the Medical College of Ohio, Cincinnati, in 1874.

WILLIAM M. PROVINCE, M.D., of Franklin,

died December 9th, aged eighty-five years. Dr. Province was a graduate of the Miami Medical College, Cincinnati, in 1867.

JAMES M. BOYD, M.D., of Bloomingdale, died recently, following an illness of several weeks. Dr. Boyd was seventy-eight years of age, and was a graduate of the University of Pennsylvania, School of Medicine, Philadelphia, in 1877.

FELIX G. THORNTON, M.D., of Knightsville, died December 8th, aged seventy-five years. Dr. Thornton was a member of the Clay County Medical Society, the Indiana State Medical Association and the American Medical Association.

J. FRANK ROBERTSON, M.D., of Indianapolis, died December 12th, aged fifty-nine years. Dr. Robertson was a member of the Indianapolis Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association. He graduated from the Medical College of Indiana, Indianapolis, in 1895.

AMOS H. HORN, M.D., of Putnamville, died December 7th, aged sixty-seven. He was a member of the Putnam County Medical Society, the Indiana State Medical Association and the American Medical Association. Dr. Horn graduated from the University of Virginia, Department of Medicine, Charlottesville, in 1883.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION*. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better *Journal* for you.

DR. AND MRS. FRANK E. WIDEMANN, of Terre Haute, have left for a trip to the far East and around the world. They expect to return in June.

DR. F. W. FOXWORTHY, of Indianapolis, has entered into a partnership practice with several doctors in the First National Bank Building at Miami, Florida.

MRS. MABEL COBB MORRISON, wife of Dr. Frank A. Morrison, of Indianapolis, died December 15th, following a long illness. Mrs. Morrison was very active in charity work and club work.

WILLIAM A. BUCHANAN, M.D., who has been secretary of the Board of Health of Hammond for the past eight years, recently has been appointed by the new mayor to serve another four years.

THE Koskiusko County Medical Society held a meeting at the Hotel Hays, Warsaw, December 15th, the last meeting of the year 1925. Officers for 1926 were elected as follows: Dr. O. H.

Richer, president; Dr. T. S. Schuldt, Pierceton, president, and Dr. Paul Garber, Sidney, secretary-treasurer.

THE Stratford Company, of Boston, Massachusetts, have announced publication of a book entitled "Not Speaking of Operations," under the authorship of Dr. John F. Barnhill, of Indianapolis.

DR. ROBERT E. REPASS, of Indianapolis, has announced his retirement from the practice of diseases of the ear, nose and throat. Dr. Kenneth L. Craft will continue the practice of Dr. Repass.

THE Miami County Medical Society held its regular monthly meeting December 21st. Officers were elected as follows: President, Dr. C. F. Rendel, Mexico; vice-president, Dr. P. E. Carter, Macy; secretary-treasurer, Dr. John E. Yarling, Peru.

THE Wells County Medical Society held a meeting at Bluffton, December 15th for the election of officers. Officers were elected as follows: Dr. Louis Severin, Bluffton, president; Dr. O. G. Hamilton, Bluffton, vice-president, and Dr. C. H. Mead, Bluffton, secretary-treasurer.

THE 10th Annual Congress of Internal Medicine will be held at Detroit and Ann Arbor the week of February 22nd to 27th, 1926. Physicians who are members in good standing of their local and national societies are invited to attend. Information may be secured from Dr. Frank Smithies, 920 North Michigan Avenue, Chicago.

THE Floyd County Medical Society held its regular annual meeting at the Tavern, at New Albany, December 10th. Following a turkey dinner there was a social meeting and officers for the year were elected as follows: President, Dr. W. A. Hall; vice-president, Dr. Fred Bierley; secretary-treasurer, Dr. P. H. Schoen.

At the meeting of the Lake County Medical Society held recently at the tuberculosis sanitarium near Crown Point the following officers were elected for 1926: President, Dr. Claude Pettibone, Crown Point; vice-president, Dr. N. K. Forster, Hammond, and secretary-treasurer (re-elected), Dr. W. E. Nichols, Hammond.

THE twenty-fifth annual meeting of the American Proctologic Society was held in Atlantic City May 25 and 26, 1925. Officers for 1926 were elected as follows: President, D. C. McKenney, M.D., Buffalo, N. Y.; vice-president, Daniel Morton, M.D., St. Joseph, Mo.; secretary-treasurer, William A. Rolfe, M.D., Boston, Mass.

At the regular meeting of the Jay County Medical Society held December 4th, Dr. Forest Keeling, of Portland, was elected president; Dr. H. H. Jones, of Salamonia, vice-president, and Dr. A. C. Badders, of Portland, secretary-treasurer. Following election of officers, a paper on "Prevention and Treatment of Scarlet Fever" was presented.

MEMBERS of the Madison County Medical Society were entertained with a dinner meeting at the Home Hospital, Anderson, December 15th. Officers were elected as follows: President, Dr. C. D. Schurtz, Alexandria; vice-president, Dr. M. A. Austin, Anderson; Dr. V. G. McDonald, retiring president, was made delegate to the state convention for 1926.

THERE will be examination held by the National Board of Medical Examiners in Parts I and II, February 10th to 12th, in all Class A medical schools desirous of holding the examination and having a sufficient number of candidates, except in large cities, where they will be held in only one school. Candidates should notify the board's office, 1600 Walnut Street, Philadelphia.

PHYSICIANS and their wives from Noble, DeKalb, LaGrange, and Steuben counties attending the meeting of the Northeastern Indiana Academy of Medicine held at the Elks' Temple, Ligonier, December 14th. Officers were elected as follows: Dr. Frank W. Black, Ligonier, president; Dr. P. N. Sutherland, Angola, vice-president; and Dr. A. J. Hostettler of LaGrange, secretary-treasurer.

THE United States Civil Service Commission announces open competitive examinations for trained nurse and trained nurse (psychiatric). Receipt of applications for these positions will close January 30th. Date for assembling of competitors will be stated on the admission cards sent applicants after the close of receipt of applications. Examinations are to fill vacancies in the Panama Canal service. Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C.

THE United States Civil Service Commission announces open competitive examinations for physiotherapy aide, physiotherapy pupil aide and physiotherapy assistant. Receipt of applications for the positions will close January 9, February 13, March 13, April 17, and May 15, 1926. Dates for assembling of competitors will be stated on the admission cards sent applicants after close of receipt of applications. Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C.

THE ninth annual meeting of the Indiana Academy of Ophthalmology and Otolaryngology will be held at Evansville, January 20 and 21, 1926. Papers will be presented by Drs. M. Ravdin, Evansville; J. R. Newcomb, Indianapolis; E. M. Shanklin, Hammond; J. M. Quick, Muncie; William F. Molt, Indianapolis; Lafayette Page, Indianapolis; R. C. Lynch, New Orleans, La.; L. D. Brose, Evansville; William F. Clevenger, Indianapolis; C. H. McCaskey, Indianapolis; John F. Barnhill, Indianapolis, and W. H. Hughes, Indianapolis.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

December 2, 1925.

Meeting called to order at 4:45 p. m.

Present: William N. Wishard, M.D.; Samuel E. Earp, M.D., William A. Doeppers, M.D., and Thomas A. Hendricks, Executive Secretary; George J. Crownhart, Secretary of the Wisconsin State Medical Society, and Fred L. Holmes, of the Holmes Newspaper Bureau of Madison, Wisconsin, guests.

Mr. Crownhart and Mr. Holmes made a special trip to Indianapolis to attend a typical meeting and make a thorough investigation into the work of the Bureau with the view of establishing a similar service in Wisconsin.

For the guests, the Chairman opened the meeting by giving an outline of the history, reason for foundation, ideals and work of the Bureau. Various members of the Bureau answered questions asked by the visitors upon the detailed work and suggestions for the forming of a Bureau in Wisconsin.

The Minutes of the meeting of November 25 were read and approved.

The following bills were approved for payment:

Hume-Mansur Company, rent and electricity.....	\$ 2.00
Central Press Clipping Service.....	6.81
The Bailey Office Supply, paper.....	15.00
Total	\$23.81

The article for release on High Blood Pressure was read and delegated for special study and corrections to two members of the Committee.

Communications were received from the Muncie Academy of Medicine and the Knox County Medical Society asking for speakers. The secretary was instructed to write for further details as to the type of meeting and kind of speakers desired.

A report upon the Administration of Periodic Health Examinations held by the Kosciusko County Medical Society was received from the Secretary of the Society. The Bureau commended the secretary of the Kosciusko County Medical Society for his fine presentation and splendid detailed report upon this meeting.

A request was received from an editor of the *Indianapolis News* who desired to know if dancing the Charleston endangers the health of young girls. The Bureau felt that the evidence was not sufficient to make a statement upon this at the present time and the secretary was instructed to make an informal investigation.

A request was received from a rural school teacher for copies of the bulletin of the Bureau on "When Winter Comes." The secretary was instructed to send the bulletin to the teacher.

The question in regard to the advisability of preparing a release upon smallpox discussed by the Bureau and the members decided that although sporadic cases of

smallpox had appeared, there was no epidemic and hence no cause for an immediate release upon smallpox.

There being no further business, the meeting adjourned.

The above minutes were approved in each separate part and as a whole December 9, 1925.

WM. N. WISHARD, M.D., Chairman,
THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

December 9, 1925.

Meeting called to order at 4:45 p. m.

Present: S. E. Earp, M.D., Wm. A. Doeppers, M.D., and Thomas A. Hendricks, Executive Secretary.

The Minutes of the meeting held December 2 were read and approved.

The following bills were approved for payment:

American Linen Supply Co.....	\$ 1.60
Indianapolis News	5.00
The Kautz Stationery Company.....	7.45
Total	\$14.05

The article for release on "Shock" was read, corrected and approved.

The New Year's statement upon a Review of Work of the Medical Profession in Indiana for 1925 read, and approved.

Speaker upon "Chest and Heart Lesions" assigned for Knox County Medical meeting at Vincennes, December 15, as requested by Knox County Society Secretary.

Report upon Publicity Bureau meeting at Connersville, November 30, upon "Laboratory Work in Relation to the Public" was read and approved.

Letters read from George Crownhart, Executive Secretary of the Wisconsin State Medical Society and Fred L. Holmes, of Madison, Wisconsin, thanking the Bureau for information gained concerning work of the Bureau, with the establishment of a similar service in Wisconsin in view. Mr. Holmes and Mr. Crownhart made a special trip to attend a meeting of the Bureau December 2.

Request from *Indianapolis News'* Automobile Editor for special article upon "Health Hints to Motorists in Winter" received. The secretary was instructed to prepare an article along lines laid down by the Bureau.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole December 16, 1925.

WM. N. WISHARD, M.D., Chairman,
THOS. A. HENDRICKS, Secretary.

THE COUNCIL

The regular mid-winter meeting of the Council of the Indiana State Medical Association convened at 10:30 a. m. Tuesday, December 29, 1925, at the Severin Hotel, Indianapolis. In the absence of the chairman, William R. Davidson, the Council named Frank S. Crockett as temporary chairman, who called the meeting to order. Dr. Davidson on arrival took the chair before the roll call was completed.

The roll call showed the following present: William R. Davidson, James B. Maple (representing the Second district in the absence of Joseph Smadel, regular councilor for that district), Walter Leach, Joseph H. Weinstein, E. C. Denny, O. T. Scamahorn, M. A. Austin, F. S. Crockett, E. E. Evans, C. S. Black, B. Van Sweringen, C. Norman Howard, E. M. Shanklin, Charles N. Combs, A. E. Bulson, Jr., and Thomas A. Hendricks, executive secretary.

Reading of the minutes was dispensed with as these were printed in the November number of THE JOURNAL and approved.

Report of the councilors by districts showed every district in fair condition and a tendency for the various

local factions to get together on state association matters. Several districts reported good results from tri-county organizations. In most cases where districts were not active it was due to bad road conditions. Every district report showed that there were many physicians in the various counties who should be and yet are not members of their county medical societies.

A number of councilors reported that the multiplicity of medical societies and medical meetings was cutting down the attendance at county society meetings. Dr. Evans, councilor for the Tenth district, said: "The multiplicity of sectional medical society meetings should be discouraged and all efforts bent to make the county medical society a real organization." Dr. C. Norman Howard, councilor for the Thirteenth district, said that the Kosciusko County Medical Society held several meetings a year in conjunction with the lawyers and dentists of the county and found these meetings very much worth while.

Dr. Crockett put the question before the Council as to the value of district meetings. Doctors Black, Leach, Evans and Maple spoke in favor of district meetings, telling of the success of these meetings in their districts. Dr. Davidson stated that the value of district meetings depended largely upon local conditions in each district. In the Twelfth district, where the county societies are extremely strong, and the LaGrange-Steuben-DeKalb Tri-county organization is very active, there seems to be no need for a district meeting.

Short reports were made by the officers. Dr. E. M. Shanklin, retiring president of our Association, spoke of the increase in membership despite the increase in dues, and pointed to the fact that more real committee work was done this year than ever before. He paid compliment to the work of the Publicity Bureau and the Industrial and Civic Relations Committee. Dr. Charles N. Combs, president-elect, spoke in optimistic terms upon the future of the Association.

The Council adjourned to the Old Colony Club dining-room, and continued the meeting throughout the meal hour.

Various committee chairmen reported to the Council.

Dr. William N. Wishard, chairman of the Publicity Committee, gave a short talk upon the growth of the work of that committee, stating that an increasing number of papers were publishing the publicity articles and an increasing number of lay organizations were asking for speakers on medical subjects. He spoke of the fact that through this work the Indiana State Medical Association was gaining the confidence of the public, and that various organizations were asking for the cooperation of the State Medical Association in various lines. Among these had been the Indiana State Conservation Department, and the Indiana High School Athletic Association.

Requests concerning the work of the Bureau in Indiana had been received from medical societies in Michigan, West Virginia, Iowa, Oregon, Colorado; and the Wisconsin Medical Society sent a special delegation to Indianapolis to attend a Publicity Bureau meeting and see how the matter was handled in Indiana.

Dr. F. S. Crockett, chairman of the Industrial and Civic Relations Committee, reported that many problems must be faced by the committee this coming year and right now the committee was marking time until a complete analysis of these problems could be made.

Dr. David Ross, chairman of the Administration Committee, spoke of several unusual cases that had come up in regard to the medical defense work of the Administration Committee. He also spoke of the amount of work that is going on at the headquarters office.

Dr. Charles Sowder represented the Legislative and Public Policy Committee in the absence of Dr. Cregor, chairman of the committee. He spoke of the fact that the forces which intend to break down medical standards

were hard at work at the present time, and that the next legislative fight was likely to be one of the keenest in history. He spoke of the advantages of the use of postal cards as a means by which the voters in the various counties could express their wishes to their representatives in the legislature.

Dr. E. E. Padgett, chairman of the Program Committee, spoke of the difficulty of getting speakers to make the proper kind of a talk before lay audiences at the big publicity meeting which always has been held in connection with the State Medical Association convention. He also spoke of the fact that the program committee was besieged with many requests from private organizations to put on talks which were more or less of an advertising nature, and that these requests, of course, always were turned down. He spoke in favor of the maintenance of the section meetings instead of combining everything in one general meeting.

Under the heading of echoes and reflections on the 1925 convention, the Council touched upon the fact that not as many physicians subscribed to *Hygeia* at the last convention as should have done so. The work of *Hygeia* was praised by several members of the Council.

A letter from E. M. Johnson, Jr., president of the Mead Johnson Company, was read before the Council. The Mead-Johnson Company lived up to its contract and paid for the exhibit space reserved despite the fact the company did not fill this exhibit space at the last convention.

Under the heading, "Suggestions and Proposals for 1926 Convention at West Baden," Dr. Shanklin offered a motion which was seconded by Dr. Evans, that a committee of three be appointed to look after details of arrangements for the West Baden session. This committee is to cooperate with the regular local arrangements committee whose membership is composed of physicians from the Orange County Medical Society. Dr. Davidson named Dr. Padgett, Dr. Scamahorn and the executive secretary on this committee.

A proposal was made that monitors be appointed to keep strict tab on each speaker so that he doesn't exceed the allotted time. Discussed and approved.

Dr. Howard made several suggestions concerning the elimination of noise, etc., in conducting the scientific meetings at the next session of the Association.

Dr. Dowden's letter concerning a charge of \$1.50 for attendance at banquet by those physicians who are not staying at the hotel referred to the special committee on arrangements.

Discussion showed a unanimous opinion in favor of Dr. Dowden's suggested arrangements that the banquet be free to all those who stay at the West Baden Hotel, and that a nominal charge be paid by those who do not stay at the hotel.

Upon the motion of Dr. Bulson, the secretary was instructed to send invitations to the secretaries of contiguous state medical societies inviting them to attend our meeting at West Baden. Dr. Bulson spoke with enthusiasm concerning the coming convention at West Baden.

Membership Problems. Dr. Leach reported upon the situation in Floyd county where the New Albany Academy of Medicine exists, composed of members outside of the regular Floyd County Society. The Council assured Dr. Leach that the officers of the Association would not go over his head or that of the Floyd County Medical Society in any action that might arise over this situation. In this connection it was pointed out that each county medical society is the judge as to the personnel of its own membership.

Under the heading "Political and Legislative Problems" each Councilor was supplied with a record showing how each representative in his district stood on medical bills at the last session of the legislature. Dr. E. C. Denny explained his plan of legislative work in

the Sixth district, and the secretary was instructed to get out copies of his letter and to forward them to the Councilor of each district in order that these may be distributed to each county legislative chairman with instructions that the letter be read at an open meeting of his county medical society.

Narcotic tax reduction was discussed, and the Council expressed its appreciation to Senator James E. Watson for his stand for the medical profession in the reduction of this unjust tax. A letter was read from Dr. Wm. E. Woodward, executive secretary of the Bureau of Legal Medicine and Legislation of the American Medical Association, with regard to the tax situation. Dr. Woodward's opinion of the situation is as follows:

"As I appraise the situation, the difficulty with respect to procuring the specific right to deduct traveling expenses incident to attendance at medical meetings arose out of the fact that the medical profession was almost the only profession making any active fight for the right to obtain any such deduction. Dentists have engaged in the fight to a certain extent. The American Association for the Advancement of Science and the National Education Association have made a few feeble efforts, but outside of the medical profession there was no particular interest manifested.

"The lack of interest outside of the medical profession arises, I believe, from the fact that no one but the medical profession is directly affected by the ruling of the Commissioner of Internal Revenue. It is well enough for him to say that the ruling applies to all professional groups alike, but on its face it does not. Then, too, as far as I can discover there has never been any published instructions to taxpayers, to income tax experts, or even to his own auditing officers to disallow traveling expenses to groups other than physicians. The deduction outside of the medical profession, and possibly outside of the dental profession, is, in my judgment, probably in theory only."

Suggestion was made by Dr. Frank Cregor, chairman of the Legislative Committee, that the Association obtain an attorney. Although the matter was discussed no definite action was taken. The plan of Dr. E. R. Zimmerman, of Elkhart, for legislative procedure was brought before the Council.

County Society Programs. It was brought out that more and more requests are being made for the Publicity Bureau to supply essayists for county medical society meetings as well as speakers before lay audiences. The Council does not believe it wise to adopt any minimum program similar to that used in Michigan or other states, feeling that it should be up to the local committee to formulate its own program and adopt its own methods.

The Council decided that the "Manual of Suggestions for Conduct of Periodic Examinations of Apparently Healthy Persons," ready for distribution by the A. M. A., should be purchased by the local county societies if they so desired and not by the State Association.

Railroad accommodations for the A. M. A. convention at Dallas, Texas, were discussed, and the secretary was instructed that it was up to the railroad company and not this office to put out any letters concerning special arrangements. When these special arrangements are made, an article will appear in *THE JOURNAL*. If the railroad company so desires, it may send out announcements to the physicians of the state, over the signature of its agent and not over that of the executive secretary.

The executive secretary was instructed to attend the session of the American Medical Association at Dallas, Texas, in April.

A resolution from the Chicago Medical Society against "constant encroachment on life work of physicians by laymen" read, and Dr. Bulson was directed to prepare

a resolution voicing the disapproval of the Council to the action of the American Public Health Association in recommending that laymen, with a D. H. P. license, replace physicians as health officers.

The Council laid on the table the so-called Riley Hospital resolution. This was the resolution presented at the first meeting of the House of Delegates September 23, 1925, by Dr. H. C. Wadsworth, of Washington, offered in behalf of the Daviess-Martin Medical Society. The resolution was:

"BE IT RESOLVED, That the Riley Memorial Hospital in its (1) control, (2) management, (3) expense per patient to the individual counties of the state, (4) relationship to the medical profession of the state, meets the approval of the Indiana State Medical Association.

"It was moved by Dr. Davidson that this resolution be referred to a committee appointed by the chairman.

"This committee, composed of Dr. Charles H. Good, Dr. M. R. Combs and Dr. Walter Leach, returned the following report upon this resolution:

"RESOLVED, That the resolution from the Daviess-Martin County Medical Society be referred to the Council with power to investigate and report at the next annual meeting."

Harlie Garver, principal of the Union City High School, and chairman of the Committee on Research of the Legislative Body of the I. H. S. A. A., appeared before the Council and asked the cooperation of the medical profession in a special statistical investigation into high school athletics. This investigation, it was pointed out by Mr. Garver, is being undertaken by his committee of the Indiana High School Athletic Association to determine the effect of athletics, and the number of hours that a student devotes to athletics has upon the student's health and scholastic standing. The Council voted its cooperation in this matter and instructed the executive secretary to lend his aid in any way fitting to the work of Mr. Garver's committee. Dr. Davidson suggested that the Publicity Bureau prepare a newspaper release upon Mr. Garver's work.

The letter from the Lumbermen's Mutual Casualty Company, objecting to the action of the House of Delegates, was laid upon the table.

Dr. C. Norman Howard made a suggestion that one lay issue of *THE JOURNAL* a year be published and that this issue be sent to physicians of the state who are not members of the medical association and to various organizations of the state.

Dr. Davidson spoke of the trouble between the Nurses' Board and the Princeton Hospital.

Dr. Davidson was re-elected chairman of the Council for 1926.

Adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

TRI-COUNTY MEDICAL SOCIETY

The newest Tri-County organization in Indiana goes to the credit of the physicians of Henry, Hancock and Rush counties. Upon December 1, some thirty physicians of these counties met at the Columbia Hotel in Greenfield and completed arrangements for the formation of the Tri-County Society, which promises to be one of the most successful in the state. Only the formal ratification by the various county societies remains before this association becomes an existing group.

H. B. Rariden, M.D., of Greenfield, president of the Hancock County Society, who presided at the meeting, appointed a committee with C. M. Gibbs, M.D., of Lowell, as chairman, to formulate working plans for the Tri-County organization. Dr. Gibbs reported that the committee had laid down a tentative program of four meetings for 1926. The February meeting was to be held at Rushville. The April meeting would be

held at Newcastle, and the December meeting at Greenfield. The fourth meeting was to be a picnic meeting some time in September, at a place which was to be decided upon by the secretaries of the three county societies.

The county organizations were to retain their unity and identity, but stress was to be placed upon the Tri-County meetings in arranging programs which would be unusually fine from the social and scientific standpoint.

E. C. Denny, M.D., of Milton, Counselor for the Sixth District, made a short talk, stressing the necessity of active interest on the part of county societies in legislative affairs even at this early date. Rev. Hillis Avery gave an address upon "Life Work" and Thomas A. Hendricks, Executive Secretary of the State Association, gave a short talk upon "Organization Work."

The following persons registered: From Newcastle: D. E. Bell, John A. Tully, W. M. Stoute, H. W. MacDonald, C. C. Bitler; from Greenfield, Charles M. Gibbs, L. B. Rariden, Joseph L. Allen, E. R. Sisson, O. C. Heller, C. H. Bruner. From Rushville: M. C. Sexton, Lowell M. Green, C. C. Atkins, J. F. Bowen. From Fortville: J. E. Ferrell, S. W. Hervey, Stewart Slocum, C. E. McCord. Carthage: W. T. Vandamend. Milton: E. C. Denny. New Salem: H. P. Metcalf. Charlottesville: W. R. Johnston. Wilkinson: Charles R. Titus. New Palestine: W. H. Larrabee. Arlington: A. G. Shauck.

CONFERENCE OF EDITORS AND SECRETARIES

Education of the layman upon the benefits of annual physical examinations, and training of the individual physician so that he may become proficient in giving these examinations, were the two topics that received most attention at the annual conference of state medical association secretaries and editors at Chicago, November 20 and 21. A Conference on Periodic Examination of Apparently Healthy Persons was held in conjunction with the secretaries' meeting.

Although organization work of societies, the use of the council, publicity work, insurance questions, legislative problems, and many other topics of general interest to state officers were discussed at the two-day session, the point stressed by each speaker and the topic that caused most discussion was the periodic health examination. One could not come away from the conference without the firm realization that whether the individual physician is for the movement or not, and whether certain organizations are in favor or opposed to the movement, that the ship of progress of the medical profession will be carried forward on the tidal wave of the periodic health examination.

More than thirty-six state associations were represented by the secretaries, editors of various state medical journals, and special delegates who were present. Besides the visitors many of the officers, trustees and heads of the various bureaus of the American Medical Association were present at the secretaries' meeting and attended the Annual Examination Conferences.

Indiana was represented by Dr. Charles P. Emerson, who was on the program of the Periodic Health Examination Conference, and Thomas A. Hendricks, the executive secretary of the State Medical Association, who attended the secretaries' meetings and those sessions of the Periodic Health Examination Conference which did not conflict with the meetings of the secretarial group.

Dr. Allen H. Bunce, of Atlanta, acted as permanent chairman of the meeting.

Dr. Olin West, secretary of the A. M. A., made the welcoming talk and stressed the necessity of keeping the A. M. A. informed upon the membership records of the secretary's office. He spoke of the difficulties arising from the fact that the A. M. A. was not promptly notified when the names of physicians were dropped from the state association, and that no reports were made

upon delinquencies, and that the A. M. A. was often embarrassed when they had not been notified of members of the various state associations who had been expelled or suspended or were out of the pale of organized medicine.

Dr. William D. Haggard, of Nashville, Tennessee, President of the A. M. A., was the first speaker. He was followed by Dr. J. R. Neal, chairman of the Legislative Committee of the Illinois Medical Society, who read a paper upon "Some Experiences in Dealing with Medical Legislation." Dr. Neal stressed the point that most of the legislative work should be done by the county medical societies. Dr. John E. Jennings, president of the Medical Society of the County of Kings, Brooklyn, New York, told of the work of the Kings County Society, which owns and maintains a fine building. Dr. Jennings said that although the physicians in Brooklyn are paying the highest dues of perhaps any physicians for their medical society, they are more than pleased to do so because the members of the profession are getting something for their dues. They pay \$25 a year for county dues, and \$10 a year to the New York State Medical Society, making a total of \$35 a year for county and state society.

Outstanding in the two days' discussion was the proposal of W. E. McVey, editor of the *Journal of the Kansas Medical Society*, Topeka, that state secretaries should have a membership in the House of Delegates of the A. M. A., and the secretaries should form a Council on Medical Economics which was to act in its line similar to the Council on Pharmacy and Chemistry, Council on Medical Education and Hospitals, etc. The convention voted that Dr. McVey should appear in person at the next meeting of the Board of Trustees and put this suggestion up to them. Dr. A. T. McCormack, secretary of the Kentucky State Medical Society, and Dr. Earl Wheadon, secretary of the Wyoming State Medical Society, took the floor and made a vigorous appeal in favor of such action. In discussing this point, Dr. W. G. Riker, secretary of the Vermont Medical Society, said: "A gap exists between the A. M. A. at Chicago and the State Medical Society at Vermont which is greater than the gap that exists between the constituent county medical societies and the State Medical Society of Vermont." Dr. Riker said, "This gap can only be filled by giving the secretaries of the various state medical societies a seat in the House of Delegates." (Although nothing was said about it at the time, some special arrangement would have to be made with societies with lay secretaries because a layman of course should never be a member of the House of Delegates of the A. M. A.)

The much-talked-of Texas plan of advertising was outlined by Dr. Holman Taylor, secretary of the Texas society. He told how the Texas physicians were running big display ads which dominated the pages of the papers and how they had a regular speaking bureau and outlined the campaign of advertising through the press. In Texas rosters of the county medical societies are printed from time to time, with messages on scientific medicine, but in no case are attacks made upon the irregulars. Although it was not brought out on the floor it was learned that this campaign of advertising is costing the Texas physicians about \$30,000 this year.

Following the talk on the Texas plan, Dr. West, secretary of the A. M. A., said that this Texas plan was a pioneer work and he doubted if the state associations should grab it up right now, although they should keep track of it and look for the outcome with a great deal of interest.

Dr. Charles P. Emerson, of Indiana, was the headline speaker at the Saturday morning meeting, made up of a group of physicians specially invited by the A. M. A. to attend the Conference on the Examination of Apparently Healthy Persons. Dr. Emerson discussed the problem of educating the undergraduate medical students to give these examinations. Dr. Charles Elliott gave a

demonstration showing how a physical examination should be conducted. Among the other speakers were Wendell C. Phillips, president-elect of the A. M. A.; Walter F. Donaldson, secretary of the Medical Society of Pennsylvania; Alec N. Thompson, Orrin Sage Wightman, Haven Emerson, Anna M. Richardson, all of New York, who spoke on the technical aspect of making examinations; Elliott B. Edie, Pennsylvania; Hoyt Dearholt, Wisconsin; Roy T. Ferguson, Illinois; Stanley H. Osborn, Connecticut, and Thomas Ordway, of New York, all of whom spoke upon the education of the laity for physical examinations.

In closing the meeting it was held in order that two things may be emphasized: First, that the family physician be awakened to his duty to his patients, in making annual physical examinations, and second, that his patients be awakened to their obligation to themselves in taking these examinations once a year.

AMERICAN PUBLIC HEALTH ASSOCIATION

FIFTY-FOURTH ANNUAL SESSION, ST. LOUIS,

OCTOBER 19-22, 1925

The St. Louis session of the American Public Health Association was one of the most successful, both from the point of attendance and interest in the various topics of the program. The attendance exceeded eight hundred registered delegates with many unregistered visitors and guests. Some of the high lights of the meeting were as follows: Following a report of the Committee on Schoolhouse Ventilation made by Dr. Leonard Greenburg, of the United States Public Health Service, based on the findings of the New York State Committee on Ventilation, the following resolution was adopted by the Association:

RESOLVED, That the system of ventilating school-rooms by fresh untreated outdoor air, admitted at the windows with gravity exhaust ducts for removing vitiated air from near the ceiling, is the most generally satisfactory method of school ventilation; and

That state laws and city regulations interfering with such scientific and economical methods of school ventilation should be repealed in the interests of the public health.

One of the most interesting questions discussed was the following: "Do visiting nurses carry infection of communicable disease from home to home?" The consensus of opinion following the discussion was that they do not. It was brought out in the discussion that—"A three months' survey at the Henry Street Visiting Nurse Service in New York, which covered eighteen cases of typhoid fever, 237 cases of measles, forty-nine cases of scarlet fever, seventy-five cases of whooping cough and forty-six cases of diphtheria, with from six to eight nursing visits in each case, failed to disclose a single case of cross infection."

It was argued, however, that each visiting nurse organization should have a Medical Advisory Committee, to lay down a code of procedure governing the contact of the nurse with patients having a communicable disease, and that this procedure should embody the same principles of aseptic cleanliness, required in the surgical wards of hospitals.

It was also advocated that more attention should be given to the training of nurses in the necessary technique of communicable disease contact, in the nurses' training schools.

Another resolution adopted by the Association relating to milk ordinances is as follows: "There now exists a great variety of dissimilar and conflicting milk ordinances and of regulations for their enforcement, and

"WHEREAS, This creates an unfortunate situation which is unfair to the producers of milk, and

"WHEREAS, It leads to conflicts between the dairy industry and health departments, with resulting lack of

confidence in such ordinances and regulations on the part of producers, consumers and the courts, and

"WHEREAS, The public health is thereby menaced through the exercise of less care by the producers and through decreased consumption of milk, be it

"RESOLVED, That this Association go on record as favoring the creation and adoption of a simple standard milk ordinance, embodying the essential principles with regulations for their enforcement suitable for the many different sizes and types of communities to be protected, and that this be referred to the Committee on Dairy Products."

The Association elected the following officers for the ensuing year:

President—C. E. A. Winslow, Ph.D., New Haven, Connecticut.

First Vice-President—John A. Amyot, M.D., Ottawa, Canada.

Second Vice-President—Max C. Starkloff, M.D., St. Louis, Missouri.

Third Vice-President—A. J. Chesley, M.D., Minneapolis, Minnesota.

Treasurer—Louis I. Dublin, Ph.D., New York.

The next meeting of the Association will be in Buffalo, New York.

KOSCIUSKO COUNTY MEDICAL SOCIETY

Dr. O. H. Richer, secretary of the Kosciusko County Medical Society, made a fine report on the activities of his county society for the past year. We are publishing it in order that the secretaries of other county societies may compare the activities of the Kosciusko County Society with the activities of their own societies for the past year.

Report of O. H. Richer, M.D., secretary of the Kosciusko County Society for 1925:

"First. During the year we have arranged ten monthly programs of general and scientific interest, at which there has been an average attendance of twenty-one. Our membership includes twenty-four active members. The average includes our visitors. At these meetings we have developed the benefits of associations, common interests, friendly discussions, fellowship, etc., imponderable benefits whose concrete value it is difficult to estimate.

"Second. Through the efforts of Dr. DuBois and committee we entertained on September 10th the 13th District Medical Society.

"Third. Through our Legislative Committee we sent a delegation to Indianapolis at the time of the last Legislature and placed ourselves at your command, willing to assist if possible at the defeat of the Chiropractor Bill. So far as I know, we were the only society so represented and we believe our pressure did do some good.

"Fourth. During the year we have held three joint meetings—one with the lawyers, Kosciusko County Bar Association; a second with the Kosciusko County Dental Society; and a third with the Warsaw Kiwanis Club. We were the pioneers in this state at least, in this line of endeavor three or four years ago when we instituted our annual meeting with the dentists, and have since seen the idea seized by many other county societies. Impressed by the success of our meetings with the dentists, we have this year enlarged our program to include also the meetings named above. The benefits of such meetings are again 'imponderable,' but, nevertheless, judging from opinions of the physicians, lawyers, dentists and laymen attending these meetings, they are actual.

"Fifth. We have outlined our stand on the question of periodic health examinations. At our November meeting, as you know, we had Dr. Moore demonstrate the technique of such an examination, and at our December meeting we had considerable discussion of this question. It was ordered that the society provide for each member a copy of the A. M. A. Manual and ten A. M. A. forms.

Perhaps not all of us may have either the desire or the opportunity to perform such examinations, but those of us who do will be prepared to give an examination that will be a credit to our profession and a benefit to the applicant.

"And Sixth. We have at all times tried to hold ourselves willing and ready to assist the State Society in carrying out the program they have adopted. We have made it a point to be informed to some degree of these things, and to that end you will remember your appearance before our society.

"This is all, but for one year we believe it makes a creditable showing."

TIPPECANOE COUNTY MEDICAL SOCIETY

December 11, 1925.

The Tippecanoe County Medical Society met in regular session December 10, 1925.

The following officers were elected for the ensuing year: President, F. A. Loop, Lafayette; vice-president, F. P. Hunter, Lafayette; secretary, J. C. Burkle, Lafayette; treasurer, Chas. Hupe, Lafayette; censor for three years, Geo. F. Keiper, Lafayette; delegate for the next year, W. R. Moffitt.

The addresses of the evening were given by Drs. Boutelle and Schweitzer from the Child Welfare Division of the State Board of Health, who told the Society in a very able manner of their work in the various counties of the state. Very happy results from their work have been obtained. Prof. H. E. Enders of Purdue University, gave an illustrated address of "Jungle Life" in northern South America. This lecture was very much appreciated by the audience, this being ladies' night of the society. Many ladies were present.

The next meeting will be held January 14th. Dr. W. R. Cubbins of Chicago, will be with us for an afternoon clinic and an evening address, with subject, "Intestinal Obstruction," illustrated with lantern slides.

Very truly yours,

J. C. BURKLE, Secretary.

BUREAU OF PUBLICITY

November 25, 1925.

Present: Samuel E. Earp, M.D., Wm. A. Doeppers, M.D., and Thomas A. Hendricks, executive secretary.

The release on "Fainting" was read, corrected and approved.

The meeting was adjourned early in order that the members of the Bureau could attend the meeting of the Boone County Medical Society at Lebanon, where Dr. Wm. A. Doeppers spoke on Anesthesia.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole December 2, 1925.

WM. N. WISHARD, M.D., Chairman.

THOS. A. HENDRICKS, Secretary

CASS COUNTY MEDICAL SOCIETY

December 19, 1925.

The Cass County Medical Society held its annual meeting December 19, 1925, and elected the following officers for 1926: President, C. H. McCully, M.D., Logansport; vice-president, J. L. Gilbert, M.D., Logansport, and secretary-treasurer, Marian Hachhalter, M.D., Logansport.

Dr. Hachhalter accepted the place of secretary-treasurer which had been held by George D. Miller, M.D., for nearly twenty-five years, Dr. Miller being elected to that office in June of 1901.

A vote of thanks was extended to Dr. Miller by the Society for the valuable services rendered the medical profession during his term of office.

The Society voted to meet once each month, the third Thursday of each month, instead of each week as heretofore.

The next meeting of the Society will be held January 21, 1926. Byron B. Thorpe, M.D., will present a paper on the subject, "First Aid in Emergency Surgery." J. H. Barnfield, M.D., will present a paper on "Emergency Surgery Relative to Industrial Insurance."

CASS COUNTY MEDICAL SOCIETY.

G. D. Miller, M.D., Secretary.

MIAMI COUNTY MEDICAL SOCIETY

December 1, 1925.

The regular monthly meeting of the Miami County Medical Society was held at Peru, Friday, November 27th, for the last combined meeting of the year.

Members from Cass, Tippecanoe, and Wabash County Medical Societies were invited guests and quite a goodly number attended the clinic held at the public library in the afternoon.

John A. MacDonald, M.D., of Indianapolis, was the honor guest of the day and evening, and held the clinic at which several very interesting cases were presented for examination, diagnosis and treatment. At 6:00 o'clock a splendid banquet was served by the ladies of the Presbyterian church, following which Dr. MacDonald presented a paper entitled, "Some Considerations of Digestive Disorders from a Practical Standpoint." The discussion was opened by Dr. E. H. Andrews, of Peru.

The next meeting of this society this month will be the annual meeting for the election of officers for the coming year.

T. J. STRONG, M.D., Secretary.

ABSTRACTS

PIGMENTED MOLES

Among the most important and most difficult aspects of a practitioner's work are such little lesions as the nevi. Frequently the physician must decide whether or not a pigmented mole is malignant or benign; and if benign, whether or not it is likely to assume malignancy. The melanin forming cells, specific in their function, are called melanoblasts. These melanoblasts are able to produce pigment and to give rise to other cells of their own nature. They lie in the basal cell layer of the rete malpighii and can produce pigment in response to any adequate stimulus. The production of a nevus involves the departure of these cells from their original epithelial nature and their migration into the corium. This phenomenon may occur anywhere in the body but is found more often on the face and neck, perhaps because of the likelihood there of irritation. Since the cells, after migration, are still capable of producing melanin, they may, after a period of slow growth, become quiescent, or they may undergo malignant change. In those nevi which remain benign, the regression that takes place is a fibrosis. This does not mean, however, that all benign moles will remain macular, become less noticeable and fade in color. Some of them may become warty, nodular and mamillated. The size or contour of the nevus, then, is not in itself an indication of safety or of danger. A complete study of melanomas has just been issued as a monograph, forming a single issue of a foreign periodical. Dr. James W. Dawson there indicates the significant signs in a mole that is undergoing malignant change. Increased vascularity and pigmentation, or superficial ulceration with periods of bleeding and subjective symptoms, are signals of warning. A history of trauma or mechanical irritation is usually obtained in such cases and is not to be taken lightly. Such history and signs justify wide extirpation, and a microscopic study of the tissue removed will show pigmentation and proliferation beyond the area in which pigmentation can be detected by the naked eye. If the extirpation is not sufficiently wide, not only has pathologic tissue been left in situ, but also more harm than good may have been done by opening channels of metastasis into subepidermal layers or into the lymphatic nodes of adjacent regions. Should the lymph nodes be involved, Bringle advises "excision of the tumor, with

a good zone of healthy skin around it and a somewhat larger zone of the underlying deep fascia, up to and including the nearest anatomical group of glands at least; and all that is removed should be in one continuous strip as far as possible."—*Journal A. M. A.*, Oct. 31, 1925.

ARE CALORIES OLD FASHIONED?

In his presidential address delivered before the American Neurological Association in Washington last May, Peterson recalled the saying of Hippocrates that there are ills, no less dreadful than those of repletion, arising from deficiency of diet. Twentieth century medicine has had its attention attracted to such deficiency disorders in striking ways. It is being admonished that, "in a land literally flowing with milk and honey, several million children in the public schools suffer from malnutrition." Peterson advanced the thesis that neurasthenia, a common ailment having a professionally unpopular designation, has failed to receive the critical consideration which its widespread occurrence dictates, and that it deserves to be studied from the standpoint of nutrition and fatigue. As if to point a promising direction for the desired research, the neurologist remarks: "We are just beginning to realize that the calories have gone out and the vitamins have come in." One who has read these columns of *The Journal* in recent years must admit that the newly recognized food factors have found consideration and that the promise which they hold for the advancement of practical therapy has not been overlooked. Mendel has well remarked, however, that we are living in a period of hectic anticipation of novelties, when much is expected of science; and the momentary enthusiasm for the new is apt to bring about indifference to the old. The fact is that the appreciation of the calory idea in nutrition has not gone out but, on the contrary, has become a permanent part of everyday science. Lest we forget, it may be worth while to recall what an adequate appreciation of the energy factor means for present-day medicine. Basal metabolism and its variations in disease are measured in terms of calories. The formerly unappreciated large food fuel needs of the growing child are dealt with in the same terms. As Mendel has expressed it, the better appreciation of the nutritive needs of those destined to become the rank and file of our nation when they are grown up—an appreciation based alike on experimental studies and on statistical data as to food habits—is not the least of the contributions which the science of nutrition has made to public welfare during the last decade. The food dictators of the future will no longer be excused if they estimate the food needs of peoples in the once conventional terms of "man values" wherein the requirements of the child population were calculated as a fraction of the adult needs proportional to the smaller weight and stature of the young. The high-calory diets in fevers have revolutionized the management of the typhoid patient in determinable ways. The reduction of obesity has become an experiment in rational low-calory feeding.—*Journal A. M. A.*, Oct. 24, 1925.

THE CUTANEOUS NEUROSES

Joseph V. Klauder, Philadelphia (*Journal A. M. A.*, Nov. 28, 1925), stresses the fact that the psychologic phase of certain skin diseases should not be neglected in treatment. The application of medical psychology may be of considerable value in the treatment of certain skin diseases, objectively as well as subjectively manifested. A psychic cause of such common skin diseases as pruritus and urticaria should be included among the many causes of these diseases, although textbooks on dermatology make little or no mention of a psychic cause of pruritus and no mention of psychotherapy in these diseases. Klauder discusses the role of suggestion in the causation of cutaneous phenomena and cites cases of psychogenic types of pruritus and urticaria and other skin phenomena following psychic disturbance, such as

the dermatophobias—acarophobia, rupophobia, bromidrosiphobia, trichotillomania and dermatothlasia.

CLASSIFICATION OF CHRONIC NEPHRITIS

It has been the experience of Henry A. Christian, Boston (*Journal A. M. A.*, Nov. 28, 1925), that, even with the application of both the old and new methods available for diagnosis it is not possible to diagnose accurately, during life, the anatomic changes that will be found in the kidneys after death. Furthermore, it seems to him that complicated classifications create a false idea of our knowledge of nephritis, particularly for those who do not obtain necropsies in their fatal cases and therefore cannot check the lesions found in the kidney with the opinion formed before the patient's death as to his proper place in the classification. Christian groups all his cases under three heads, with five subdivisions (1) acute nephritis; (2) subacute nephritis, (a) subacute nephritis with edema and (b) hemorrhagic nephritis; (3) chronic nephritis, (a) chronic nephritis with edema, (b) chronic nephritis without edema and (c) vascular hypertension progressing into nephritis. It is emphasized that the careful repeated application of such simple methods as history taking, physical examination, including the use of simple bedside apparatus, as the stethoscope, ophthalmoscope, blood pressure machine and blood counter, along with very simple methods of urine examination and simple tests of renal function, give the needed information for the understanding and management of patients with chronic nephritis. Methods out of reach of the well trained general practitioner add not a great deal of useful information and certainly should not supplant any of these simpler, long used methods.

MANIPULATIVE (CHIROPRACTIC) DISLOCATIONS OF THE ATLAS

Edward S. Blaine, Chicago (*Journal A. M. A.*, October 31, 1925), reports on three cases of forward dislocation of the atlas on the axis; one with fracture of the odontoid process; all three were apparently the result of chiropractic treatments. One of them resulted in death, the second in constant dull pain and limitation of motion, with a material loss in efficiency of the patient, while the third appears to be progressing satisfactorily in spite of the dislocation of the atlanto-axial joint, although there is a marked reduction in the movements of the head. In all the instances detailed, the important point is the resulting compression of the spinal cord and its coverings and the efferent and afferent nerve structures of the region, as well as the associated blood vessels. In a forward dislocation of the atlas on the axis, there may also occur an interference with the free passage of blood through the vertebral arteries as they pass through the foramina in the transverse processes of the atlas. Interference with the venous flow will also occur in this injury, and the amount of obstruction due to pressure of the bony parts will depend largely on the degree of dislocation, which may be so slight as to result in no disability, as is evident in one of the cases included in this presentation. The demonstration of this lesion is best accomplished by roentgen-ray projections of the craniocervical region, with the patient in the lateral recumbent posture. The binocular shadow visualization of the bones and joints of the region is preferable to the two dimension shadows of the single film. The patient's head should be so placed that its sagittal plane is parallel to the plane of the roentgen-ray film, thus bringing it in direct alignment with the long axis of the spine, the weight of the body resting on the lateral aspect of the nether shoulder. This can be accomplished by use of a hard pillow or block of suitable thickness on which the film cassette is laid. An anteroposterior projection is also of value in the determination of this lesion, particularly for demonstration of lateral displacement of the involved

bones. He points out that so long as the laws governing the health of the individual permit such methods as the chiropractic system to be practiced and thus fail to protect an unsuspecting public, just so long will occurrences such as are detailed in this presentation take place. Another case in point that received considerable newspaper notice in the Chicago papers in February, 1923, may be cited. A girl, aged 11, with a tuberculous caries of an upper cervical vertebra was taken to a chiropractic school by her parents; there the students gave her "spinal adjustments" that resulted in a cord injury due to collapse of the diseased bone. Her death followed immediately after this unintelligent, nonscientific and essentially criminal manipulation. As this was being written, an additional case came to the author's mind. It concerns a child, aged 5, who had bronchial pneumonia. The chiropractor to whom she was taken placed the child face downward on two tables separated about eight inches and began manipulating the child's spine; when he came to the portion unsupported by the two tables (he is said to have used great force), the child cried out with pain and died. At the coroner's inquest, it was found that death resulted from the chiropractor's treatment.

ROENTGEN RAY IN TREATMENT OF LOCAL INFLAMMATIONS, CELLULITIS AND CARBUNCLES

Fred M. Hodges, Richmond, Va., (*Journal A. M. A.*, October 24, 1925), asserts that in the majority of cases of carbuncles the roentgen ray acts almost as a specific, even in very extensive lesions, when the inflammation is limited largely to the skin and subcutaneous tissues. Pain is usually relieved, drainage enhanced, and a more rapid recovery follows. The deep seated types, especially those occurring on the back of the neck, when treated after the carbuncle was well developed, responded almost as well to irradiation. In two early cases of this type on the back of the neck, no benefit appeared to follow irradiation, and probably a delay in breaking down and healing occurred. In these, complete surgical excision is probably the best method of treatment. Chronic infections of the parotid usually respond to this type of therapy. Roentgenotherapy is probably of definite value in the early stages of erysipelas.

THE WASSERMANN REACTION AND THE PATIENT

The results of the routine treatment of 1,170 cases of syphilis are set forth by Frank C. Knowles, John B. Ludy and Henry B. Decker, Philadelphia (*Journal A. M. A.*, October 24, 1925). Of the 1,170 cases of syphilis admitted for treatment, eighteen weeks' treatment was completed in 380, and forty weeks in 116; treatment lapsed in 790. Of those patients in whom at least one course of treatment was completed, 244 originally had a strong positive Wassermann reaction; seventy-four, moderately positive; twenty-six, weakly positive; two, doubtful, and thirty-four, negative. After eighteen weeks of treatment the reactions of sixteen were strongly positive; of twenty-two, moderately positive; of 142, weakly positive, and of 200, negative. Of the 116 in whom forty weeks' treatment was completed three had strongly positive reaction; eight, moderately positive; fifty-one, weakly positive and fifty-four, negative. Treatment lapsed in 474 patients during the course of neoarsphenamin and in 316 during the course of mercuric salicylate. A little more than one-third of the patients were women. Only fifteen children were treated in this series. More than one-half of the patients (65 per cent.) were negroes, and many of the others were of the lowest social stratum and seafaring men. It is indeed fortunate that less than one-third of the patients completed eighteen weeks of treatment and only one-tenth forty weeks, notwithstanding a follow-up system of letters and visits made by a competent full time social service worker and her assistant.

BOOK REVIEWS

OPHTHALMIC PLASTIC SURGERY. By Edmund B. Spaeth, M.D., F.A.C.S., Major, M.D., U. S. A., chief of eye clinic, Walter Reed U. S. Army General Hospital, Washington, D. C.; clinical instructor and assistant in ophthalmology, the Army Medical School, Washington, D. C., 258 pages with 168 illustrations. P. Blakiston's Son and Company, 1012 Walnut street, Philadelphia. Cloth. 1925.

This book, just from the press, gives the newer methods of ophthalmic plastic surgery. The author, who had an extended and varied experience in doing plastic surgery during the late war, and has continued as chief surgeon in the eye clinic of the Walter Reed U. S. Army General Hospital at Washington, D. C., has continued to have unusual opportunities for rehabilitation work, of which plastic ophthalmic surgery has been foremost. In fact, the large number of deforming injuries of every kind and description seen during the last war formed the basis for a greater development in the art and science of plastic surgery for restoring function as well as cosmetic appearance than all of the experience of the past, and the author of this book not only has had the opportunity of taking advantage of the cases presented but has made the most of it. Concerning the whole subject we can do no better than quote from the foreword, by a well known ophthalmologist, in which it is pointed out that "plastic ophthalmic surgery requires the most careful and painstaking study of each individual case before undertaking the actual operative procedure. Even the period in time that should lie between the injury and the operation is a necessary consideration. The surgeon must possess to the fullest extent the conception of "*suaviter in modo, fortiter in re.*" He must possess great boldness in making the size of his flaps larger, and the removal of all scar tissue thorough; yet at the same time he must practice the most rigid economy in sacrificing muscle tissue or normal skin. He must simulate the other side of the face as closely as possible, dynamically and statically. He also must be prepared to sacrifice the lachrymal gland if such a course is necessary. He must learn from the tailor the method of placing sutures without undue tension; from the carpenter the fitting in and beveling of his flap; and from the sculptor, the restoration of the bony walls and overlying tissue. When one's eyebrow has been destroyed, its fellow must share its ciliary contents; and when both brows are destroyed, even the back of the head must supply the necessary hairs to restore these important features. In bony deficiencies, denser substances, such as autogenous cartilage grafts, must supply the needed structure."

The ordinary text books upon diseases of the eye give little space to plastic ophthalmic surgery, and so far as known, there is no work in English that is devoted to ophthalmic plastic surgery. Therefore, the appearance of this book by one who has had extensive and intensive experience, not only through the great war but also in the various accidents occurring later in civil as well as in military life, is most timely. Perhaps it is well to say that the author has been fortunate in being able to perform his operations in a thoroughly equipped modern hospital where the important after-care could be instituted and the after-results recorded. A large number of individual cases have been described and well illustrated by photographs and, where necessary, due credit has been given to others. Altogether the book is a noteworthy and exceedingly valuable contribution to ophthalmic literature, and it will prove especially valuable to every ophthalmic surgeon who is called upon to do reconstructive work in connection with industrial or other injuries about the eye.

RECOLLECTIONS OF THOMAS R. MARSHALL, ex-vice-president of the United States and ex-governor of Indiana. 398 pages. Cloth. \$5.00 The Bobbs-Merrill Company, publishers, Indianapolis.

No one could know Thomas R. Marshall without loving him. His keen wit, delightful humor, homely but healthy philosophy, his unswerving faith, his modesty and lack of pretense, and withal his honesty, made him a character loved and respected by all with whom he came in contact. With the adoration that he had for noble women, he dedicated his book "to the two women who were uninjured in the fall of Eden, my mother and my wife." His book is entitled "A Hoosier Salad," and in the foreword Mr. Marshall says: "This book is not intended to turn the tides of history nor to change the opinion of men as to the great things which took place when I was in public life. It has been written in the hope that the Tired Business Man, the Unsuccessful Golfer, and the Lonely Husband whose wife is out reforming the world may find therein a half hour's surcease from sorrow." He then proceeds to give his recollections as a boy, as a country lawyer, as governor of Indiana and vice-president of the United States, with sketches of distinguished men with whom he came in contact, including diplomats and dignitaries, princes and potentates, interspersed with anecdotes, and a philosophy that gives the entire book a wittiness and flavor that is interesting as well as inspiring. The book is delightful, and to those who had the pleasure and honor of knowing Thomas R. Marshall the book will be accepted with gratefulness and appreciation. To others we recommend it as the author recommends it in his foreword.

ASTHMA, HAY FEVER, URTICARIA AND OTHER ALLIED MANIFESTATIONS OF ALLERGY. By William W. Duke, Ph.B., M.D., 339 pages, with seventy-five illustrations. C. V. Mosby Company, St. Louis, 1925. Cloth, price \$5.50.

The subject of allergy is an interesting one from a scientific as well as practical standpoint. Unfortunately it is little understood and too little appreciated by a large number of medical men who frequently are coming in contact with it in patients. As the author well says, "It seems strange that a commonly eaten food such as an egg can, to a sensitive individual, rank with the most violent poisons known to medical science." However, that this hypersensitiveness does exist in a fair percentage of all patients is worthy of recognition and attention. The reactions may manifest themselves in practically every tissue and in practically every organ, and simulate in almost any locality the effect of functional or organic disease. For this reason the phenomenon should be known and looked for by physicians in every line of work if they wish to reduce error to a minimum. The author's experience has been entirely clinical and his discussion of the subject is from the clinical point of view of an internist. His study of the subject embraces over five hundred cases. The routine examination includes a careful history, physical examination, urinalysis, examination of a blood smear, a quantitative Wassermann test, and radiographs of the teeth and sinuses. Other laboratory and roentgenographic examinations are made when indicated. Routine skin tests were made in every medical case if the possibility of hypersensitiveness was suggested either by family history, personal history, physical examination, or special tests. An elaborate routine was carried out in specific testing. To make the study more comprehensive, group tests as well as individual tests were employed, and the findings have thrown an interesting light on the whole subject of allergy. The author points out that the whole subject would seem to be shrouded in complexity and obscurity, but the truthfulness of the facts have been proved beyond the shadow of a doubt, and he is optimistic enough to believe that the facts determined by him as well as the facts determined

by others should make the whole subject as simple as other subjects with which the profession generally is now familiar and which are accepted generally as proved and real. The various chapters deal with anaphylaxis, experimental and real, serum sickness, bacterial allergy, the general discussion of natural hypersensitiveness in human beings, and the various contributory causes of reaction. Thus, hay fever, asthma and other reactions are thoroughly discussed, as are also the sensitiveness to emanations of vegetable or animal origin, and the irritating effects from food, light, cold, drugs and mechanical irritants. Of special interest is the discussion of the subject of treatment which is based intelligently upon the findings proved through careful examination and elimination of other factors. The book is exceedingly interesting from a scientific point of view, while at the same time it has an immensely practical value.

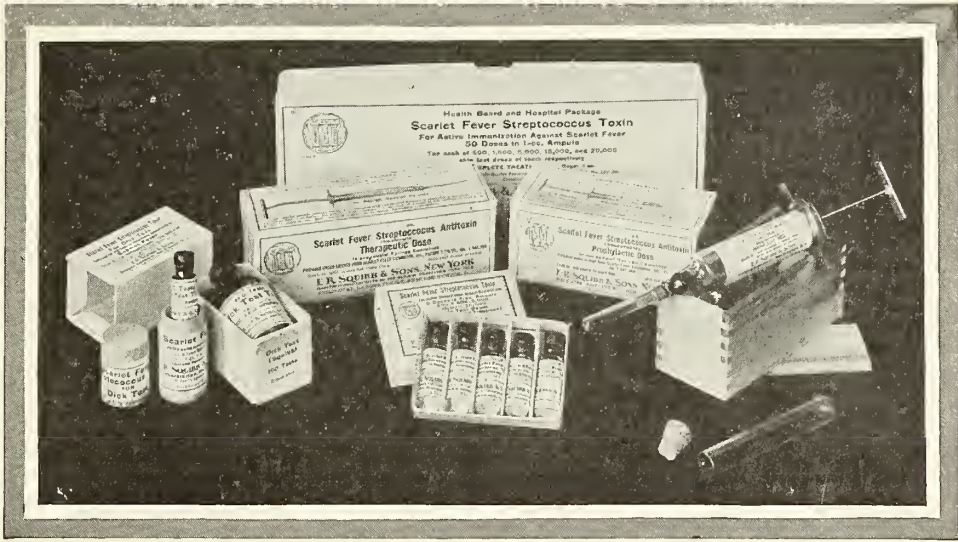
THE MEDICAL FOLLIES. By Morrish Fishbein, M.D., editor of the Journal of the American Medical Association. Two hundred twenty-three pages. New York: Boni and Liveright, 1925. Cloth, price \$2.00

This is a critical analysis and expose of osteopathy, homeopathy, chiropractic, mental healing, and a discussion of several other subjects that pertain to health. It also contains a discussion of some of the fallacies of other subjects pertaining to health and its preservation. While it is a book for the lay public it will be found interesting to medical men and will serve a useful purpose if kept on the waiting room tables of physicians' offices. More extended comments concerning the book will be found in the editorial department of this number of THE JOURNAL.

MEDICAL OPHTHALMOLOGY. By R. Foster Moore, O.B.E., M.A., B.Ch. (Cantab.), F.R.C.S., assistant ophthalmic surgeon, St. Bartholomew's Hospital; Surgeon, Moorefields Eye Hospital. Second edition with eight plates and ninety-two illustrations. Three hundred forty-four pages. Cloth. P. Blakiston's Son and Company, 1012 Walnut street, Philadelphia. 1925.

This book represents the second edition of a well known English work that has met with great favor among all ophthalmologists and many general practitioners of medicine. The author attempts to give a concise account of those pathologic conditions of the eyes and their connections which are of interest in general medical diseases. Also he has included in it a description of a number of conditions in which there are important ophthalmological signs and symptoms without special reference to the diseases with which they are connected. The chapters in their order refer to special symptoms and signs; diseases of the blood vessels; blood diseases; diseases of the nervous system; disorders of nutrition and metabolism; specific infections; congenital and hereditary conditions; miscellaneous diseases; effects of drugs, and parasites. Much of the discussion of the various subjects considered is based upon the personal observations of the author founded upon nine years of service in the medical wards of St. Bartholomew's Hospital in London. For the most part little criticism can be offered concerning the opinions expressed, and the author probably will find many ophthalmologists in the United States who will be surprised that he makes no reference to "focal infections" or "intestinal toxemia" as a cause of ocular disease even though he does not deny that they play an important part in certain cases. The author satisfies himself by saying that nothing but good can come from the adequate treatment of pyorrhea, an apical abscess, an infected tonsil, or a disordered bowel, but he says that these are conditions so common in adults that much critical investigation will be required before we can accept them as direct causes of ocular diseases hitherto classed as of unknown etiology. "It will be admitted that no specific features characteristic of the lesions ascribed to focal infections

(Continued on Adv. Page xx)



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BOOK REVIEWS

(Continued from Page 50)

have yet been defined." It is admitted that this is a conservative opinion, one justified by the seeker after truth. This leads us to compliment the author upon producing a comprehensive work that not only is trustworthy but exceedingly interesting and instructive to the medical man who aims to become a good clinician. The illustrations, several of which are in colors, are especially good and serve to elucidate the text.

SLIT LAMP MICROSCOPY OF THE LIVING EYE. By Dr. F. Ed. Koby (Basle), late first assistant of the ophthalmic clinic; correspondence member of the ophthalmological society of Paris. Translated by Charles Goulden, O.B.E., F.R.C.S., surgeon to the Royal London Ophthalmic (Moorefields) Hospital and Clara Lomas Harris, M.B., chief clinical assistant, Royal London Ophthalmic (Moorefields) Hospital. Two hundred twenty-one pages with forty-three illustrations. P. Blakiston's Son and Company, 1012 Walnut street, Philadelphia. 1925.

The slit lamp is one of our newer instruments of precision for the examination of the human eye, and the intelligent use of it and the interpretation of its findings constitutes a new branch of the specialty of ophthalmology. Consequently this work on slit lamp microscopy of the living eye as an aid to the early diagnosis and study of the symptomatology of the anterior segments of the eye by experienced clinicians and teachers will prove interesting and instructive to those ophthalmologists who now are using the slit lamp. Particular stress has been laid on the methods of examination, which are of fundamental importance, and especially have the authors emphasized the phenomena of reflection of light which so often leads to error. Attention also is called to the mistakes often made by the beginner in mistaking congenital

anomalies and senile modifications for pathologic changes. As the author well says, the book is intended to show the beginner in ocular microscopy something of what it is and also prevent him from seeing that which it is not. Inasmuch as this is only one of a very few books on the subject of microscopy of the living eye, it should prove very acceptable to every ophthalmologist.

OCULAR THERAPEUTICS. By Doctor Ernst Franke, A. O. Professor of ophthalmology and chief of the second eye clinic at the University of Hamburg. Translated by Clarence Loeb, A.M., M.D., oculist to the Michael Reese Hospital, and head of the department of Ophthalmology of the Michael Reese Dispensary, Chicago. One hundred eighty-three pages. Cloth, price \$3.50. The C. V. Mosby Company, St. Louis. 1925.

This book, as the author says, is an attempt in a few words to give our present knowledge of the treatment of the diseases of the eye. Its purpose is to give to the student or practitioner of medicine a list of the remedies which may be used, and the method of treatment from which to select the one which his own experience has shown to be appropriate for the special case. Operations and the prescribing of glasses as therapy have not been considered. The author has refrained from giving his personal opinion as to any therapy mentioned, though the treatment generally recognized by leading ophthalmologists as being adequate has been described. It may be noted that some of the newer drugs of American manufacture are not mentioned, but perhaps this is to be expected in view of the fact that the work is a translation from a German author. The book is divided into two parts, the general part including a chapter on general treatment, and another chapter on local treatment. The special part contains one chapter devoted to the treatment of the various organs in and about the eye. The book may be described as an epitome of ocular therapeutics.

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ORIGINAL ARTICLES

FACTORS IN THE MANAGEMENT OF PERITONITIS*

W. WAYNE BABCOCK, M.D.
PHILADELPHIA

Thirty years ago patients with peritonitis usually were fed and purged and narcotized and delayed until they fell in the extremis of a diffuse infection. The surgeon then took charge, anesthetized, eviscerated, irrigated, disinfected, scrubbed and manipulated the peritoneum until any remaining resistance of the patient had been destroyed, when the patient died. In St. Thomas' Hospital, London, from 1899 to 1903 the mortality after operations for peritonitis from appendicitis was over 80 per cent., and when the appendix was not removed over 97 per cent.

Five years after Oschner had shown that if one did not feed or purge or disturb these patients with beginning peritonitis, the process would usually localize and the patient rarely die,—the mortality in this and other hospitals remained over 40 per cent. Even today we are far from having eliminated all of the dangerous methods used in treating peritonitis.

Popular errors in medicine that contain a germ of truth drag on from decade to decade, with revival after revival. The Alonzo Clarke treatment of peritonitis by opium of our grandfathers becomes the William Pepper treatment of our fathers, and the Crile-Anoci-Morphine treatment of the present day. Few have vision to see that the treatment may do good despite the harmful effect of the opium, because it prevents the administration of water, food, laxatives, and other stimulants to peristalsis. Morphine often is required to control the pain at the onset of peritonitis, but it is not a drug for continuous use during the course of the disease.

Diametrically opposed to the above is the old treatment of peritonitis by saline purgation, popularized by Lawson Tait during the latter part of the last century, and still, I regret to say, occasionally employed. In the gonorrheal infections of

the pelvis, for which Tait so often operated, purgation is safe. In the case of a perforated appendix or duodenal ulcer, purgation may be fatal; yet, so slowly do we shake off the old errors that, on an average, I have seen two deaths from peritonitis each year, where the purgative had caused defecation into the peritoneal cavity. In an article recently published, a noted English surgeon naively tells of the harrowing complications, and terrific reoperations that befell his patients with peritonitis whom he as well as the referring physician fed and purged. Alonzo Clarke and Lawson Tait, whom we may justly honor, "lie mouldering in their graves," but their errors "go marching on." Not alone in hamlets and in rural practice, but in medical centers, and with medical leaders, do we continue to find dangerous methods of handling peritonitis.

Although less harmful than the use of foods and laxatives, the present routine use of proctoclysis and enemas is a source of danger. Joseph Price in his day decried the use of enemas, but his advice was not heeded. Rectal injections increase peristalsis and pain, delay localization and favor septic peritoneal diffusion. Locally, rectal irritation is produced, for it is abnormal for the rectum to contain fluid, and bacterial multiplication is favored. Absorption of fluids from the colon in peritonitis is variable and uncertain. If the patient needs water, why give manure water? Water given under the skin in the form of salt solution is clean and is positively absorbed.

Virulence: As we study the factors that underlie the virulence of the inflammation, we realize that the operator and the treatment used may determine the course of the infection. We understand how one patient, with the abdomen distended with pus, shows little reaction and has an easy recovery after the escape of the pus, while a second patient with but a few drops of pus in the peritoneum is soon overwhelmed by a rapidly fatal toxemia. The diagnosis from the laboratory of streptococcic peritonitis in one case explains the virulence of the infection, but in a second case it is the treatment used and not the laboratory that explains why the condition was mild and free from serious complication.

It becomes evident why certain of us refer a distressingly large proportion of patients with

*Presented before the Section on Surgery of the Indiana State Medical Association at the Marion Session, September, 1925.

diffuse forms of peritonitis for operation; and why certain surgeons have an inordinate percentage of complications, and of mortality.

The Physiology of Peritonitis: In general, an insult to the peritoneum is followed by an arrest of peristalsis, and if the parietal peritoneum is involved, a rigid contraction of the overlying abdominal wall. Thus the great factors in the treatment of any acute inflammation are at once invoked—rest, support and protection. If the duodenum is divided or perforated, the pylorus goes into spasmodic contraction sufficient to prevent leakage from the stomach for a period up to two hours. If, during this time, the patient unwisely takes liquids or solids, these promptly are ejected by vomiting. If the irritation is in the lower ileum or cecum, the pylorus through the ileo-pyloric reflex, spasmodically closes and substances introduced into the stomach are expelled by vomiting. Likewise enemas are either retained or are expelled with little gas or fecal matter. In a typical case of appendicitis, the first reaction, the intestinal spasm, gives the initial symptom of diffuse abdominal colic, which is soon followed by nausea and efforts to empty the stomach, then by localization of pain in the lower quadrant of the abdomen and finally by the evidences of toxic absorption, fever and leucocytosis. With peristalsis arrested, and the stomach emptied, the peritoneum throws out plastic exudate to wall off the area of irritation, together with serum and cells to neutralize and overcome the infection. If not interfered with, these natural processes usually are efficient. Bacteria are killed by the peritoneal exudate and their toxins neutralized. Even though the appendix undergoes gangrene and an abscess forms, spontaneous evacuation with recovery often occurs. A perforating peptic ulcer frequently is sealed and converted into a subacute or chronic perforation. Even certain gunshot wounds of the intestine treated by rest and starvation may close without operation, as shown in the Boer war.

Absorption from the Peritoneal Cavity: The peritoneum has a surface area somewhat greater than that of the surface of the body, and an absorptive capacity for water greater than that of the stomach or intestines. An animal may absorb its weight of salt solution from the peritoneal cavity in twenty-four or forty-eight hours, yet the absorption of the septic products of peritonitis is in the normal course of events amazingly slow. Note that an infection which in the pharynx, the lungs, the pleura, in the biliary radicals, the kidneys, the veins, causes a violent chill, high fever and a drenching sweat, in the peritoneum produces no chill and only a moderate temperature reaction. In minor degree it suggests the comparison between a brain abscess and septic sinus thrombosis.

If the insult of the peritoneum is very intense or widespread, as in acute pancreatitis, or from the rupture of a gastric or duodenal ulcer, the early symptom is shock with a normal or subnormal temperature. A chill or hyperpyrexia in peritonitis

indicates extraperitoneal complication. A chill at the onset or during the course of acute appendicitis, with negative findings as to the lungs or kidneys, instantly suggests that terrible complication, pyelophlebitis. Recurrent chills and fever in the absence of malaria usually confirms this diagnosis.

Rather rarely a large walled off abscess forms in the peritoneum without fever, and without leucocytosis. Particularly, may this be true of a central abscess. It is to be remembered that the temperature reactions in the aged are much less, while in children they are more intense than those of young and middle aged adults.

The slow absorption in peritonitis is not generally appreciated, and often physicians excuse their delay in septic peritonitis because the temperature was only 99° or 100° F. We should never expect or wait for a high temperature in peritonitis, and always look for complications when hyperpyrexia is present. Absorption may be increased in peritonitis by feeding or purging, and especially by introducing salt solution into the peritoneal cavity, by operative trauma, by irrigating, scrubbing, sponging, or by removal of exudate. I have seen hyperpyrexia and death rapidly follow irrigation for an apparently mild, well localized pelvic peritoneal infection. Dudgeon and Sargent contrast nineteen cases of peritonitis treated by thorough irrigation and evisceration followed by eighteen deaths; with six cases treated locally with no deaths.

In peritonitis, therefore, the function of the peritoneum is productive and exudative rather than absorptive. Yet, the ancient fear of peritoneal absorption hangs over us; and despite daily experiences, we do not realize that a drop of pus usually does less harm in the peritoneum than in the subcutaneous tissues. Take that not unusual occurrence,—a pus distended or gangrenous appendix ruptures in removal, and the foul pus flows into the peritoneal cavity. For twenty years, in such cases I have blotted up the excess of pus, and closed the peritoneum without drainage or disinfection. Little peritoneal reaction follows, for the bacteria are rapidly destroyed and removed. But if we close the overlying fat and skin, a troublesome subcutaneous phlegmon and abscess usually forms. In such cases therefore we do not drain the peritoneal cavity but rather the subcutaneous fat. The surgeon who pricks his finger in operating for streptococcal peritonitis is often in as much danger from his minute infection as the patient from his massive one. The subcutaneous tissues, mark you, are much more vulnerable to many of these infections than the peritoneum.

The predominant danger in peritonitis lies not in absorption from the peritoneum, but in the complications that develop outside the peritoneal cavity, against which the peritoneum is a protective wall. To use an Hibernianism, the great danger of peritonitis is not the peritonitis. Let us analyze

the pathologic conditions that arise: The streptococcus, the pneumococcus, the bacillus pyocyaneus are considered to be especially virulent in the peritoneum, yet these organisms often enter the peritoneum without clinical evidence of peritonitis. Do we hesitate to operate for ulcer or gall bladder disease because aspiration from the duodenal tube shows the presence of streptococci or pneumococci? Of course not, and the contamination of the peritoneum by this bile or gastric or duodenal fluid during operation usually does not necessitate drainage or result in infection. In so-called clean appendectomies, contamination by the colon bacillus or other organisms, will be found if cultures are made from the clamp used in crushing the appendix, or the sutures used in the cecum. Yet, peritonitis does not follow except under conditions we shall later mention, and at most there is only a slight increase in the incidence of wound infection. As a rule, as shown by their action on the subcutaneous tissues, the microorganisms derived from the gall bladder, stomach or duodenum, are less virulent than similar organisms derived from the lower intestinal tract or pelvis. Very important is the previous environment of the bacteria. The dose and virulence may be tremendously increased by previous growth in blood clot or dead tissue. In the necrotic tissue of malignant tumors, streptococci often grow and acquire virulence, especially for other persons than the host. Thus Coca saw serious attacks of erysipelas follow the injection of emulsions made of malignant tumors.

In carcinoma of the stomach, the associated anacidity also favors infection. After resecting the stomach for cancer, if there is achlorhydria, the peritoneum usually resists infection, but the parietal wound suppurates in contrast with the aseptic healing after resection of the stomach for ulcer. A perforated cancer of the stomach gives a much more virulent peritonitis than a perforated gastric ulcer. This has led us to introduce a weak solution of hydrochloric acid into the stomach or bowel before resecting for cancer.

Streptococci that have incubated in the blood clot and dead tissue left from an incomplete abortion or labor, are notoriously virulent, but here it must be emphasized that it is the metritis, the subperitoneal infection, and the septicemia that gives the mortality rather than the associated peritonitis. Yet these bacteria also produce a deadly peritonitis, and to do an abdominal section for such an infection in the acute stage is inexcusable.

Dead tissues, and other substances in the peritoneal cavity, often prevent the effective action of the normal bactericidal factors. The experienced surgeon has learned the danger of a simple appendectomy during an abdominal operation when blood or blood clot will be left in the cavity. A patient with a large sterile blood clot in contact with a so-called clean appendiceal stump is in danger of peritonitis and death. Years ago, Hal-

stead found that many thousand virulent streptococci could be injected into the peritoneal cavity of a dog without serious reaction; but, if there were introduced simultaneously a bit of sterile blood clot or potato, a fatal peritonitis followed. Protected in blood clot or potato, or dead tissue, bacteria that otherwise soon would be destroyed and removed, rapidly multiply, acquire virulence and then flood out in a continued stream to overwhelm the peritoneal defenses. Likewise an otherwise effective peritoneal resistance to severe bacterial invasion fails when sterile bile, urine, antiseptics or even physiologic saline solution enters the peritoneal cavity. From an abdominal surgeon, who is careless in hemostasis, who uses salt solution freely upon the infected peritoneum in peritonitis, whose operations are traumatic and prolonged, we expect postoperative complications and unnecessary mortality. A simple appendectomy with an intra-abdominal blood clot is more to be feared than a gangrenous appendix.

Recently, I was shown a year's results in appendectomy from two parallel surgical services in the same hospital. On the one service very free incisions, ample exposure, free manipulation and application of salt solution with much sponging, free evacuation, and packing were used at operation followed by the early postoperative use of strychnine and eserine, by mouth, and liquids, calomel and salines. In the other service, in septic appendicitis the smallest convenient incision was used with the least possible manipulation or exposure, without packing, washing or any attempt to remove all exudate, with very limited drainage, and with the strict avoidance of water, food, laxative or other peristaltic stimulants, until normal peristalsis had spontaneously been resumed. During the year no deaths occurred in either of these services from a simple appendectomy, but with diffuse peritonitis, the operative mortality in the first service was 50 per cent., while in the second it was under 6 per cent. Truly the patients "sown in corruption, reap in incorruption." As previously indicated the preoperative medical treatment shares with the surgical technique and postoperative care, a determining part in the outcome of peritonitis. I overheard two resident physicians wagering that a patient being brought to the hospital for appendicitis would prove to have a septic peritonitis. With the patients of this particular referring physician, the interne had quickly learned to associate the results of feeding, of purgation and delay.

The anesthetic is an important factor in peritonitis. Ether and chloroform produce parenchymatous changes in the organs, reduce resistance to infection, and favor certain complications. Nitrous oxide-oxygen, ethylene, and especially local anesthesia, skillfully used, have not the same objections and are to be preferred. Yet, if one is to choose between a quick non-traumatizing operation for peritonitis on a patient well relaxed under ether or chloroform, and a slow, difficult and

traumatizing operation upon a rigid, straining, struggling patient under gas or local anesthesia, poorly given, I would select the ether or chloroform. The perfect relaxation and slight protoplasmic change from spinal anesthesia make it almost ideal in peritonitis. Unfortunately it has other dangers that are only eliminated by the most skillful supervision. The use of a local anesthetic within the peritoneum is harmful, decreasing the resistance to infection and favoring bacterial dissemination. It is also often difficult to secure adequate relaxation of the rigid abdominal wall in peritonitis by local anesthesia. Yet often it is to be preferred to ether.

Causes of Death in Peritonitis: Death occurs from two great causes, (1) an ileus with high intestinal toxemia; and (2) infection that has spread without the peritoneal cavity, especially into the blood stream. The symptoms of the rapidly overwhelming toxemia that follows a high intestinal obstruction are well known. Three methods of treatment have been suggested: A high enterostomy, a jejuno-colostomy with or without a cecostomy, as suggested by Handley, and Costain's Lymphaticostomy, or the drainage of the thoracic duct in the neck. The second method is too severe. The third has not yet fulfilled the promise of the interesting laboratory experiments. The first, the introduction of a small tube for drainage in the upper small intestines, is often life saving and should never be forgotten and the supply of body chlorides should be fully maintained. It is to be remembered that septicemia is not invariably fatal, and that blood transfusion or the intravenous injection of typed ascitic fluid and especially continuous hypodermoclysis may be of much value. Decreased resistance to peritonitis is found in young children and in patients over thirty-five years of age. Obesity, diabetes, jaundice and associated infection as pneumonia, typhoid, or toxemia from ether, chloroform, narcotics, or nitrous-oxide cyanosis distinctly increase the danger in peritonitis.

In peritonitis operative manipulation is,

Very dangerous if the infection is from the streptococcus hemolyticus, the pneumococcus, acute fulminant type, or the bacillus pyocyaneus;

Dangerous if from the staphylococcus aureus, the streptococcus or the colon bacillus, but is

Not dangerous when the casual organism is the tubercle bacillus, the gonococcus, the pneumococcus, chronic form, or the staphylococcus albus.

SUMMARY

1. The two great causes of grave forms of peritonitis are intra peritoneal leakage and delay. Simple penetrating wounds of the peritoneum without visceral injury rarely cause fatal peritonitis.

2. In the preoperative treatment of peritonitis, an ambulant treatment, the administration of water, broths, soft foods or cathartics by mouth, and the dulling of the patient's reactions by continued

refrigeration and narcotism favor the death of the patient.

3. In the surgical treatment of peritonitis, profound general anesthesia, large or multiple incisions, manipulation, exposure, separating, milking, mopping, scrubbing, injecting, antisepticizing, eviscerating, excessive draining and imperfect occlusion or hemostasis favor the death of the patient.

4. In the postoperative treatment of peritonitis the continued use of narcotics, strychnine, eserine, pituitrin and the early use of water, food and laxatives by mouth, favor the death of the patient.

5. The treatment of peritonitis is the early removal or occlusion of the source of infection with the least exposure or manipulation of the peritoneum, and the least possible disturbance of the protective peritoneal exudate. Sero pus or thin fresh pus is bactericidal, antitoxic, phagocytic. Sew up the peritoneum and do not dilute, modify or remove this peritoneal fluid. Old thick pus, or pus with necrotic particles contains many dead cells and may be absorbed with difficulty. Do not wash it away but give it a chance to escape by a simple tubular drain. Drain, but do not disturb organized greenish or yellow exudate.

6. Blood clot, dead tissue, foreign bodies or hemorrhage are deadly in incubating bacteria and spreading peritonitis. Remove, isolate, and occlude these factors by appropriate gauze packing. While the infected appendix usually is to be removed, do not attempt to excise or resect inflamed or necrotic omentum, the uterus for fibroids, or other tissue during an acute peritonitis.

7. Operation is not of value in a secondary general purulent peritonitis that is an expression of a general sepsis as are many cases of pneumococcic and certain cases of streptococcic peritonitis. Avoid operation in these patients unless clear evidence of localization appears.

8. Drainage of the general peritoneal cavity is impossible. Drains usually are walled off within four hours. Multiple drains especially those between the intestinal coils and to various parts of the peritoneal cavity are unnecessary and harmful.

9. Gonorrheal pus rarely is dangerous in the peritoneum, and never harmful to the skin, fat, fascia, or muscle. Never drain an abdominal wound for gonorrheal or tuberculous peritonitis.

10. The Oschner method of delaying operation for peritonitis during the intermediate very septic period is valuable but is not well adapted to children or the aged, or in cases of perforation with rapid or continued leakage.

11. Morphine in peritonitis temporarily reduces peristalsis, relieves pain, and affords rest; but it impairs peritoneal resistance, inhibits phagocytosis, blocks all forms of elimination except perspiration, reduces hepatic function, and favors nausea, toxemia, and delirium. Do not use morphine because there is pain, determine the cause of the distress; if from the nausea of gastric

elimination, gastric dilatation, gastric retention, or gastric regurgitation—use lavage by a gastric or duodenal tube. If from jejunal intoxication do an enterostomy. If from tympany use the rectal tube. If from toxic excitation or delirium aid elimination. If from secondary foci of infection locate, evacuate and drain. Morphine may be required at the onset of peritonitis and to tide the patient over certain crises. It should not be used as routine or continued treatment in peritonitis.

12. Food and laxatives in peritonitis favor leakage, prevent localization, spread infection, increase temperature, pulse, nausea, vomiting, tympany; invite obstruction, ileus, jejunal toxemia, and are responsible for many deaths. No liquid or solid food should be given by mouth either before or after operation until safe localization has occurred, as shown by free spontaneous passage of flatus and feces with stabilization of the pulse.

13. Enemas in peritonitis increase peristalsis, delay localization, favor leakage, and dissemination of infection, and increase the patient's discomfort. Enemas irritate the rectum, unbalance the bacterial equilibrium of the lower bowel, and favor bacterial growth. Proctoclysis provides a fecal decoction and rich bacterial culture for absorption. The absorption of this foul water from the colon in peritonitis is variable and uncertain. Proctoclysis should be replaced by the more certain and cleanly hypodermoclysis which may be used continuously. Many patients with peritonitis require additional water and salt during the period of localization.

14. No antiseptic, no drug, no operation can replace the detoxicating and antiseptic action of the cells, serum and pus found in the peritoneal cavity, in acute peritonitis. Truly the early liquid exudate of peritonitis is a genuine laudable pus to be conserved and protected. Many patients have died because it has been washed and scrubbed away, and we who have so often laughed at the term "laudable pus" have shown a most lamentable ignorance.

15. The preoperative treatment of peritonitis should include complete rest usually in the Fowler position, with the absolute withholding of all liquids or food by mouth. If the stomach is not empty it should be emptied by a stomach tube. Enemas should be withheld while there is evidence of leakage, during the period of dissemination, and until localization has occurred. The abdomen should be supported by a bandage, protected from manipulation, and during the early painful period an ice bag or hot water bottle may be applied with care that the skin is not irritated or necrosed. Morphine or codeine may be given subcutaneously for the initial pain, but is not to be used continuously. Strychnine, atropine, hyoscine, scopolamine, adrenalin, pituitrin, eserine, physostigmine, should not be given. Dehydration and starvation are combated by salt solution,

subcutaneously, which may be given up to 4,000 c.c. daily, or by intravenous injection of saline and glucose or typed blood or serum. Blood chlorides are to be maintained by the use of salt solution which may be given in strengths up to 3 per cent.

The preoperative treatment is to be used in case of doubt, pending the arrival of the surgeon, or to tide the patient over a brief period of intense shock or the acme of the infection. It should not excuse operative delay during the early stages of peritonitis. The preoperative treatment is also the postoperative treatment until localization has occurred.

Operation in Peritonitis: The incision should be over the causal lesion. Leaking openings should be occluded or closed and the cause of the peritonitis removed or isolated. The shortest incision, the briefest operation, and the least possible intra-abdominal manipulation should be used. Foreign bodies should be removed or isolated, but liquid or plastic exudate should not be removed, diluted or disturbed any more than is absolutely necessary. The abdomen is to be closed without peritoneal drainage unless there is solid necrotic material or old dead pus in the cavity, when peripheral drains of the soft cigarette type or soft rubber tubes are carried to the bottom of the cavity to be drained. With a short muscle splitting operation for appendicitis with drainage often no sutures are required. In streptococcic peritonitis drains should be removed late and only when spontaneously loosened.

DISCUSSION

O. G. PFAFF (Indianapolis): Our distinguished friend, Dr. Babcock, has presented his subject in a very careful, interesting and thorough way. Many years ago Alonzo Clark promulgated the opium treatment for peritonitis. This was in conjunction with continuous hot applications. Some cases got well and a great many died. As time passed we proceeded to use saline cathartics and ice instead of opium and heat, and likewise some patients got well and many died. It became the fad to treat all cases, regardless of the quality of the infection, with saline cathartics for forty-eight hours and if no improvement resulted the abdomen was opened. Again some got well and many died. Dr. G. W. Crile had a very interesting experience during the war. In a short time he had some two hundred cases of horrible abdominal wounds, many with portions of the wall blown away, others partially eviscerated, all hopeless. They were given morphine in large doses, and although they all died of peritonitis he was surprised to note that many of them lived for days beyond the time it was thought possible, and this seemed to be attributable to the narcotic. Opium is not to be considered a remedy for peritonitis, but given in proper doses it relieves pain during the early postoperative stages, and tranquilizes the patient. In that way it helps nature. The cure

lies in prevention. We must institute an early offensive. Many patients bring with them elements of disaster in their systems which flare up and give rise to mortality. It is impossible to close all avenues of infection. In a simple operation peritonitis may follow. We cannot tell just why. The general condition of the patient may have been depressed. We should give that patient plenty of fluids. The free use of normal salt is often most valuable. Occasionally glucose should be given. We should transfuse certain patients before operation. These are life saving procedures. They bring up the resistance in the patient which enables him to ward off the threatened infection. Slow surgery, much traumatism and a great deal of blunt dissection all invite peritonitis. Multiple major surgery is unjustifiable. It is being condemned today by the best surgeons; they will not do it. If two serious operations are necessary they should be done on separate occasions.

We should be on the lookout for localization in any form of peritonitis, and when pus can be demonstrated, make quick drainage.

I want to thank Dr. Babcock. He has done us a great service in coming here today.

M. R. COMBS (Terre Haute): This talk by Dr. Babcock has made a profound impression on my mind. Having been associated with him for quite a time, anything he says always makes a profound impression on my mind because I always have found him to be conservative. Some of the things struck me at a tangent and would require consideration before I could properly appreciate them. It seems to me I would have to take parts of the talk and study them before I could really appreciate or grasp the argument. Some of the things, of course, obviously can be accepted without any qualification whatsoever.

The question of the treatment of peritonitis, of course, is still very largely unsolved. The fact that we have had so many changes of treatment is sufficient proof that we have not formulated an efficient method. Some of the things Dr. Babcock has said have helped me to explain certain features that were questionable before. For several years I have been somewhat dubious about proctoclysis. I had the privilege of reading a paper at a local society a short time ago in which I expressed the opinion that while I used proctoclysis because I knew nothing better and had been taught to use it, it always seemed to me that I could not really determine in my own mind that the patient had received sufficient benefit for the uncomfortable situation that follows its use. I am satisfied that hypodermoclysis is much more reasonable and is better. I would not be surprised to see the method of ordinary proctoclysis gradually disappear.

Like Dr. Pfaff, I was glad that Dr. Babcock left a loophole for the use of morphine, because it seems to me I could not practice surgery, even in the limited way in which I do practice it, without the use of morphine, but, of course, mor-

phine must be used with discretion and with care.

DAVID ROSS (Indianapolis): To me one of the most valuable things Dr. Babcock told us, and one of the things we have learned with the years, was when and how to let things alone. The least surgery in any given case that will accomplish what you want or what the patient needs is the best surgery we can use. The idea that we can go into an abdomen, rid it of every particle of infection, and drain it, is an awful mistake for which the patient pays the price. A large drainage system of any kind soon becomes an obstacle and not a help. Where necessary to drain the quicker we get rid of the drain the better. This thing which nature has thrown out is a protection, and we are at first inclined to think that it should not be there when we wall off an appendiceal abscess. As the Doctor said, when we enter an abdomen with cleansing or aseptic solutions we are breaking down the protection nature has made, as we do when we break down the surrounding wall of an appendiceal abscess.

J. H. EBERWEIN (Indianapolis): This paper on peritonitis has been a very interesting one and agrees exactly with my treatment with one exception, and that is in the use of morphine.

With regard to the operation, I never put a sponge or anything else in the abdomen. I remove the appendix if I can do so with little trauma. Sometimes I just tie it at the base and remove. Usually in these hard and distended abdomens I use very light ether anesthetic and have it removed about the time I start to close the abdomen so the patient is awake in a few minutes. I use rubber tube drainage which is removed in a very few days. In the after treatment I use the Fowler position. I give salt solution with glucose by hypodermoclysis, three or four thousand cubic centimeters daily, and in addition use proctoclysis, but the reason I do not have trouble with the proctoclysis is that I use a very small catheter and introduce it only two and a half or three inches and disconnect it every thirty minutes to allow any gas or accumulation of water to escape. In the proctoclysis I give sodium bicarbonate and glucose also. I usually give the patient morphine sufficient to keep respirations from 12 to 14. If it is necessary we give morphine every three or four hours. It is surprising how these distended abdomens without any enemas will flatten out. I allow nothing by mouth. I often have had patients with suppurative appendicitis go without water by mouth for ten or eleven days. I never give anything by mouth until the pulse is all right and the temperature has come down and the abdomen is soft. I continue giving them morphine until the bowels move without enema or cathartic, and give no water at all until the bowels have moved a time or two. I have had a good many of these suppurative cases and I have not lost any in a good many months.

W. H. WILLIAMS (Lebanon): As I looked over this program I could not think of any subject that

would be discussed at this meeting that would be of more interest to me than the discussion of peritonitis and its treatment. I always feel that of all the complications that may be found in abdominal cases with which we have to deal my hands feel weakest when I have a case of peritonitis with which to contend.

The treatment that has been outlined to us in the past has changed in so many ways that we are uncertain as to what we should do. I have been using morphine as indicated by some of the discussants and in various articles which have been written. I have used glucose and sodium bicarbonate by the drop method, by the Murphy drip, and I have used it intravenously. I have used normal salt solution with glucose by hypodermoclysis. I always have felt that I derived considerable good from the application of heat, and the method that I use in applying that heat is to place moist towels over the abdomen and over them an electric pad and covering that over with a dry towel and then accurately watching the heat. I find you cannot use a moist towel very long because the skin will become sensitive. Then I remove them and continue the heat with the dry towel. Whether that is best I do not know. I would like to ask Dr. Babcock his method. I also would like to ask him what he considers best in hypodermoclysis, whether it should be given under pressure and in small quantities at a time or by the continuous method; also what he thinks of glucose intravenously.

JAMES Y. WELBORN (Evansville): I do not think it will do any harm again to tell Dr. Babcock that we appreciate his paper. This subject is so important that if we left out all the other papers and kept on it all day we probably would do many people good.

I am pleased to talk about the administration of opiates in these cases. I usually ask the doctor if he has given an opiate, and I ask him whether he ever has been operated. I advise him to have an operation and see what effect an opiate has on him. I think a small amount of morphine given to keep the patient quiet is the best basis on which to plan our treatment. Some patients will go through with one hypodermic; others require one, others two, and still others three within the first thirty-six hours. It seems to me that if they have not had this amount of opiates to relieve them they have suffered too much, considering that an opiate does not always show a bad effect. I think it is imperative to have opiates.

Nothing has been said, up to the present time, about those cases of peritonitis which develop in our supposedly clean cases. I think Dr. Babcock intended to apply the same rules to these cases. As soon as we have a case of peritonitis that has developed in a clean case, remove a few stitches and put a large drain down to the operative wound. I have done this for ten or fifteen years without a death. That, I think, is better than to leave that case of peritonitis undrained.

The methods of treatment following operation in which peritonitis is concerned were very interesting to me. I insist on giving these patients a moderate amount of water. The small amount I give helps them in the first twenty-four hours, and even in active cases I repeat the hypodermoclysis every six hours until the patient is improved.

WILLIAM W. BABCOCK (closing): I beg to thank the gentlemen for this discussion. I had hoped to arouse discussion. I wished to see what your general reaction would be. There were several things I desired to suggest. One was that our mortality in the past has not alone been due to delay and poor medical treatment. A large percentage of the patients have died from poor operative treatment, and many would have lived but for the operation and the unwise stimulation of peristalsis. The point I desired to make regarding opiates was that while morphine and opium are valuable, they are not drugs for continuous use; they are not specific, and they have no peculiar antidotal effect in controlling peritonitis. True, in Alonzo Clark's method morphine did good because the patients were prevented from taking food or laxatives. They were kept so stupefied all the time that they had no desire for food. So the bad effects of the opiate counterbalanced the good that came from keeping the patient quiet. I find so frequently that the resident physician or the nurse uses morphine routinely to control pain. Instead of finding out what causes the pain they give opium. Often during the first twenty-four hours you will have need to control the pain, but after that the patient will not have severe pain unless something is going on that should not go on and that should not be masked by an opiate.

Many times an elderly patient coming out of an opiate following operation goes into active delirium and struggles. Such a patient should not again be given morphine. If you will but diagnose the condition present and relieve it the need for an opiate will disappear. I myself had a perforated appendix with local peritonitis. After operation I did not take any opiate. I can say there was no local operative pain. The incision did not give pain. The distress came from position and lying in bed. That with gas gave the chief trouble. We give opium where it is needed, but do not give it as a routine measure to cover up the patient's symptoms. Of course, glucose is used as a food. It is one of the best available fuels that we have.

Regarding hypodermoclysis, I think it was Eisendrath who suggested the use of a "Y" tube with two non-corrosive hypodermic needles. No constriction is used on the container and the rate of flow governed by the edema of the tissues is regulated by the height of the container above the patient. The patient's tissues will take up a great quantity of fluids in this simple way, even to 9,000 c.c. a day. In the rectum you do not know whether

the patient is absorbing fluid or expelling it. Injections directly into the blood are sometimes needed. But we must consider how much we are doing to unbalance our blood chemistry by putting fluids directly into the vessels. Recent studies are unsettling our belief in acidosis and the use of alkalines in these septic patients. These studies show the great need for chlorides and also that sodium bicarbonate is not needed as there is already an alkalosis. Chlorides are very important in regurgitant vomiting. In the very bad cases, the operative introduction of a small tube into the jejunum may relieve the intestinal toxemia and be life saving.

APPENDICITIS*

A. C. McDONALD, M.D.
WARSAW

Acute Appendicitis—A typical case.

Symptoms:

1. Pain, usually in epigastrium or about the umbilical region.
2. Vomiting or nausea. Most commonly three or four hours after the pain.
3. General abdominal tenderness — most marked on the right side, particularly on the appendix.
4. Rigidity of abdominal muscles.
5. Elevation of temperature.
6. Leukocytosis.

The writer realizes that each doctor will make a correct diagnosis with some of those symptoms absent, and also when they do not occur just in this order, but he believes this to be the general rule, which it is wise to inquire into and follow at first visit and let his experience and judgment lead him when a few detours occur as they so frequently do in this, even more we dare say than in most other clinical pictures.

Pain. The early pain in the experience of all observers is located in the epigastrium or over the umbilicus, and if seen early the general tenderness, and particularly tenderness over the appendix, may not be evident at the first visit. Hence, the grave danger of allowing the family to report the progress of the case on the following day, for the severe early pain will have disappeared and localized tenderness will have taken its place. This tenderness calls for less complaint, and the patients and friends take a favorable outlook and the case passes into the condition in which the infection is not confined to the appendix. So, if we feel uncertain, let us go back to see in the next twelve or twenty-four hours rather than allow the friends to report by phone.

Vomiting or nausea. Note that Murphy places vomiting or nausea next in the list of symptoms and gives three or four hours as the time. Personally, I have not seen this symptom so consistent as he has described, and I find that others

do not mention the observation with the same emphasis as he does. Nevertheless, it is a valuable symptom.

Tenderness and muscular rigidity. The third symptom of abdominal tenderness is very familiar to us all. It is usually associated with muscular rigidity. I only wish to remark that we should remember that in all the cases this is due to local peritonitis, and we should not expect it to be confined to the right side always. In fact, personally, I find some tenderness on both sides, though the point of complaint more frequently will be on the right. McBurney's point has been placed as midway between the anterior superior spine and the umbilicus, but these very exact precisions must be taken broadly and liberally, and we should be guided by a broad judgment and experience in conjunction with the other manifest symptoms. It is scarcely necessary to remind such an audience as this as to the fallacy of demanding a mathematical exactness in clinical medicine, but as I have been guilty myself, it is most likely that there will be a few others who will do or have done the same. Experience is the great eraser of this fallacy.

Temperature is the next symptom. Not high as a rule; 101.5 has been the average in our series. It may be higher and it may be absent. In a case of Dr. Anglin's the temperature was never over 99, but at operation it showed an exceedingly large, inflamed appendix containing pus, but not ruptured.

Leukocytosis is a valuable symptom and should not be neglected. Of course, it only shows the patient has been infected with a pus producing organism but does not tell the location. We have seen one case where it was absent in a child with an appendix beginning gangrene. Nevertheless, it is a valuable symptom.

Tumor is a symptom, but is late—always due to either an abscess or an inflammatory exudate which will soon develop pus.

When a case of acute appendicitis subsides in a few days, that is, the tenderness disappears and the fever subsides, again to appear, we may feel quite sure that an abscess is developing. In our experience that happens almost uniformly on the eighth day and may be located in the iliac region, in the pelvis, or even on the left side, and it may be in the lumbar fossa if the appendix happens to be retrocecal.

Diagnosis. If the pain does not begin in epigastrium but is first felt low down in the right side, it is most likely acute salpingitis. This will be corroborated if patient will admit that she has painful urination, showing a urethritis. The diagnosis will be conclusive if we can feel a mass on vaginal examination.

From Stone in Kidney. Pain begins in the back usually. Pain is more agonizing. Probably no fever and no leukocytosis. X-ray will show stone probably. Red cells in urine nearly always. This is most important.

*Read before the General Meeting of the Indiana State Medical Association at the Marion Session, September, 1925.

From Cholecystitis. There may be cases where the diagnosis is next to impossible, that is, the symptoms may be so indefinite and inconclusive that the most experienced will hesitate to commit themselves. It does help to remember that gall bladder disease is more frequent after forty and is much more common in women who have borne children, and as Deaver says "in one who is fair, fat and forty."

From ruptured duodenal ulcers or gastric ulcers. Pain here is more intense and excruciating and the tenderness is more immediate and general, and we may get the history of ulcer, but, anyhow, both call for immediate operation (in four hours).

There are other conditions which may have to be differentiated occasionally, and in this paper can only be mentioned, but time will not allow for any elaborate details, in such conditions as mesenteric thrombosis, psoas abscess, tabes dorsalis, herpes zoster, diverticulites, typhoid fever, pyelitis, movable kidney and detele crexis, ectopic pregnancy, pneumonia with pain in abdomen, especially in children.

Treatment. All are agreed at the present time that immediate removal of the appendix in the early cases (by early is meant in this paper a case where the infection is confined within the appendix, at least is supposed to be confined there), as indicated; reason in brief being that the outcome in such a case is practically certain. A deferred policy involves uncertainty.

A second class would require operation a little later, with signs of toxemia not too marked, and the evidence of peritoneal mischief confined to the locality of the appendix. Operation should be undertaken at once.

A third class, and this is the kind that give our mortality. To illustrate the type I cannot do better than quote a case history from Deaver: "Mrs. E. L., aged twenty, admitted fifty hours after initial symptoms. Had been given a purgative. Temperature 102.5, pulse 140, respiration 32; abdomen slightly distended and very rigid on both sides below the umbilicus. Above there was marked rigidity except in substernal notch. The lower half was extremely tender, rather more so on the right. Leukocyte was 21,000.

"In short, the patient was hard hit, operation was deferred and patient given no food; fluid by rectum, with stomach lavage. Second day general condition improved, mass on right side. Operation with recovery."

There may be honest difference of opinion in such a case, but it is worth noting that such radical experts as Deaver has been, should advise delay in operating. It does seem to the writer that our mortality could be lower by conservative treatment in those cases.

Chronic appendicitis. Following the earlier discussions of acute appendicitis, it was soon learned that cases that apparently recovered without operation were followed by a certain amount

of local trouble, and especially by a train of well marked reflex symptoms of other abdominal organs as well as marked signs of focal infections anywhere in the body. About the same time surgeons noticed the comparative safety of interval operation. This operation was followed by almost uniform good results in the cases succeeding the acute attack. Soon the removal of the appendix was done on almost all cases which showed any ill-defined symptoms in the right lower abdomen. It was necessary that many failures followed.

This led many surgeons to doubt the existence of chronic appendicitis which did not give a history of some acute abdominal trouble. Those opinions do not coincide with the abundant clinical evidence, which has demonstrated beyond doubt that there are two types of diseased appendices that may not give a history or even signs of local trouble, and are relieved by removal of the appendix. For example, there is the appendix containing fecal concretions, often of considerable size, which may to the touch feel like a string of beads. Secondly, there is the appendix which is so often found when exploring for a perplexing epigastric condition. No pathology is found in the upper abdomen, but an appendix is revealed bound down by a mass of adhesions. Unless there is some local peritonitis present these two types do not give rise to local trouble pointing to the appendix.

Pathologically then, chronic appendicitis can be classified as:

1. Chronic appendicitis, with a distinct cellular pathology and with a history.
2. Chronic appendicitis without a history, having a mechanical, if not a true cellular pathology, of the two types mentioned above. The proof of this lies in the relief following the operation.
3. A class of uncertain pathology, known flippanantly as "right siditis." This is a class by itself, is common and should be ruled out.

Symptoms. The symptoms of chronic appendicitis, like the acute, does not allow mathematical exactness in their interpretation. They may vary in number and in intensity. Nothing but observation and experience will help at times.

The appendix dyspepsia is quite often somewhat typical:

1. Pain which occurs soon after food usually in less than an hour.
2. Flatulence is often present and the patient can belch at his will.
3. Vomiting is less constant but occurs frequently in most cases.
4. Tenderness in the epigastrium is frequent, so also there may be felt real pain as in ulcer. This pain can be reproduced by pressure over the appendix. All those gastric symptoms are modified by the kind and quantity of food taken.

Coincidentally, with those reflex symptoms there occur general symptoms of focal infection. One of our patients had severe headaches at intervals.

accompanied by vomiting, backache and general malaise, and floods of tube casts in the urine. That it was not a nephritis was demonstrated by its entire disappearance following appendectomy, so that a patient can show any or all the symptoms of dyspepsia and also the general symptoms of focal infection.

Diagnosis. From gall bladder disease not always possible. The points to be considered are:

1. Age. Gall stones most likely if over forty, especially if in a woman who has born children, and is quite stout.

2. A possible history of colic, and perhaps jaundice:

3. It is doubtful if a diagnosis can be made by the character of the dyspepsia, but it will help at times if considered that gall bladder has two symptoms more prominent than others—slight and almost continuous nausea, and extreme belching, are more outstanding than they are in appendicitis. Gall bladder pain nearly always radiates to the back and is associated with the various neuralgias and rheumatism more constantly than in appendicitis.

There has been one symptom noted by us which I believe is not sufficiently realized in general, although in personal talks with other men they tell me that they have also noticed it. Namely, a pain in the right hypochondrium, not radiating to the back or under the shoulder blade, and not tender on pressure in this region, is usually due to a chronically diseased appendix and will be demonstrated at operation. As this is not generally thought of in this connection, it will be helpful if the discussants will remember to express themselves along that line.

Next in order of frequency would come the exclusion of stone in the ureter. In a recent article in the *Journal of the A. M. A.*, C. H. Mayo remarks that the appendix has been removed in one-third of the cases of stone in the left ureter and in two-thirds of the cases of stone in the right ureter. This, of course, arises from hasty diagnosis and faulty history of the case, failure to use the x-ray, and to examine the urine for microscopic blood.

It would be out of order in a paper of this kind to attempt a differential diagnosis of all the possibilities that may occur and should be thought of in this connection. But there is one other that presses for discussion. I refer to what is flipperantly known as "right sinitis." These cases are sufficiently numerous to call for special consideration, as they probably account for much of the doubt which is cast on the existence of chronic appendicitis with a history. They are operated too frequently with no relief to the patient and with distress to the surgeon.

At the American Medical Association session in Detroit in 1916, F. D. Gregory Connell drew attention to this class of cases, and as far as I know was the first who analyzed the subject from his own series of cases. He says that in 212 cases of operation for chronic appendicitis, eighty-seven

were not followed by a satisfactory relief. After excluding from the above the cases in which true pathologic lesion and proper diagnosis had been demonstrated at a subsequent operation, or was reasonably evident, such as duodenal ulcer, cholecystitis, pancreatitis, stone in ureter, adnexal disease, tuberculosis, syphilis, malignancy and orthopedic conditions, there still remained forty-eight cases the symptoms of which could not be explained rationally on a pathological basis. He places them in the class which he calls "pseudo appendicitis."

Whatever the pathology they occurred, for the most part, in persons of the neurasthenic type. Most of them have long chest and narrow intercostal angle, with general appearance of gastropotosis. They have many of the digestive symptoms of chronic appendicitis, both local and reflex, and the writer knows of no certain means of diagnosis other than the behavior and general appearance of the patient. It is well to remember always that such a patient may have a pathology such as has been described in Class 2. They should be approached cautiously and operation not hurriedly advised. By so doing distress will be saved the surgeon, operation will be avoided, and, lastly, others will not be deterred from a much needed operation by our well heralded failures.

In connection with the mortality figures, coupled with the well-known facts of the mortality chiefly due to late and neglected cases, it seems to be of interest to know where the blame should be placed. I have examined exactly fifty cases of acute appendicitis coming for operation since January 1, 1925. Of these fifty cases, thirty-seven were operated on the first day, two on the second day, four on the third day, one on the fifth day, one on the seventh day, and one on the eighth day, and one in two weeks. Of these thirteen cases operated after the first day, five were delayed on account of difficult and likely impossible diagnosis; eight were caused by the delay on the part of the patient in calling a doctor. It is, therefore, only fair to place the greater part of the blame on the ignorance of patients in regarding the acute abdominal pain as something like acute indigestion, or something else. It is probable that this mortality would be lower by a systematic education of the people of the community by doctors explaining the matter to their patients.

To recapitulate the points emphasized:

1. Early operation on appendicitis will save nearly all cases and also limit the expense of hospitalization.

2. That cases seen late, or on the third or fourth day, with rather an active spreading peritonitis, would have a greater chance of recovery if the active process is allowed to localize itself.

3. That there are in chronic appendicitis following the acute attack local symptoms, reflex abdominal symptoms, and frequent general symptoms due to focal infection.

4. That there are also cases of chronic appendicitis with or without similar pathology but usually with mechanical pathology, if you please, such as fecal concretions or masses of adhesions which produce symptoms identical with true chronic appendicitis.

5. That a condition resembling chronic appendicitis occurs for the most part in neurotic subjects, giving signs of local and general trouble that are not relieved by operation.

DISCUSSIONS

MILES F. PORTER, SR. (Fort Wayne): Speaking first of the subject of diagnosis of appendicitis, I think we should always bear clearly in mind the difference between pain and tenderness. One is the automatic, voluntary expression of discomfort on the part of the patient; the other is a like symptom brought out by the examination of the doctor, and between the two there is a great difference. Appendicitis, especially in childhood, usually commences with pain in the epigastric region and is very apt to be accompanied by vomiting and perhaps diarrhea. A careful examination of the abdomen will show the greatest tenderness is in the neighborhood of the appendix.

The temperature sometimes is normal or practically so with a gangrenous and fulminating case of appendicitis, especially if the temperature is taken in the axilla or in the mouth, but in a vast number of these cases if the temperature is taken in the rectum you will find an elevation of the temperature. I owe this diagnostic point to my good friend, Dr. Pantzer, a point in which I did not have much faith for a long time until I had eventually to bow to the force of facts.

Another thing, if you are at a loss to make a diagnosis in some of these cases, you can get both the tenderness and the tumor with the finger in the rectum if you cannot get it any place else.

Why do we have that mortality? That is the most important point brought out in this paper. I think it is due first and foremost to delay. What is the cause of that delay? I will pass by the delay due to ignorance of the public by simply saying that we all recognize the importance of the work which the medical profession throughout the world is striving to do now in bringing health subjects before the public. The other part of the delay—50 per cent.—is due to the doctors, and what causes that delay? First, because so many of us worship at the shrine of accurate diagnosis; second, because we are very apt to give cathartics—purgatives; third, because we give morphine. Delay and purgatives kill appendicitis cases directly; morphine kills them indirectly, and the way it kills them is to make the patient seemingly better, better in the minds of his friends, in his own mind, and in the minds of the doctors, when as a matter of fact he is dying as fast as circumstances surrounding the pathology permits. Morphine is a good thing in a case of peritonitis if it does not cause you to put off what you ought to do, and if it does that, it is a bad thing. For that

reason most of us are coming to the point where we refuse to give morphine to an individual whose belly ought to be opened, until he consents to have it opened.

There is another reason why I think we have that mortality. That is the desire on the part of a whole lot of surgeons to do a complete and nice surgical operation. I have no objection to a surgeon waiting to see whether a given case will circumscribe itself so it will make it easier to operate, if he is a surgeon who can tell whether it will do that or not. I confess I cannot. If you have an appendix with an accumulation of pus, open the belly, provide for drainage, and let the patient alone, and with God's help he will get well; but if you try to help him too much he will die.

O. G. PFAFF (Indianapolis): I suppose that it always will be in order to talk about appendicitis. We thought about twenty years ago that we had learned all about it, or that we had learned so nearly all about it that we should teach the profession that there is just one thing to do in appendicitis and that is operate immediately. About the time we got them in line on that point we began to teach about chronic appendicitis and its significance, and to tell how many mistakes were made and how many cases were operated that were not appendicitis. That has been overplayed. There is an occasional appendix taken out under a mistaken diagnosis, but I believe this occurs very rarely in the hands of good surgeons. It is true that the occasional operator will cut for a right sided pain without much care in diagnosis, and those cases finally may have a kidney removed or stones removed from the ureter, and that gives a black eye to the diagnosis of chronic appendicitis. Such cases may occur in the hands of the best clinicians, but they do not occur as often as we are apt to think.

At a recent meeting of one of our prominent societies an essayist advanced the thought that we have no such thing as chronic appendicitis—that it is a misnomer. That is splitting hairs. We have what are recognized as conditions leading to these attacks, which may or may not be inflammatory but which are progressive, so that the thing we call chronic appendicitis is practically well designated in that way. I do not believe you can have a well appendix today and an inflamed one tomorrow. It is a gradual process. I believe that when the first attack of acute appendicitis occurs the patient has had a diseased appendix for some time, generally several years.

As to the belief that in these cases you generally can tell the exact condition you are going to operate for—all that is wrong. If you have very early and convincing evidence that this is a case of appendicitis that is enough, why play with it? If you are not convinced, call in somebody who has had more experience to confirm your judgment and set you right. The man does not live who can tell in the first twenty-four hours of a given

case of appendicitis anything about what eventually will take place. All appendicitis cases begin with a certain amount of pain and other suggestive symptoms, and then we wait until tomorrow or next day to operate, which is wrong. The fulminating case, the case that is going to die, begins just like the case that gets well. With our knowledge of appendicitis a diagnosis can be made in the majority of cases, and then the thing to do is to operate immediately.

CHARLES STOLTZ (South Bend): My view of the matter is as Dr. Pfaff has stated it; but I would go further and say that practically every case of appendicitis is chronic. What you have as an acute attack is what has happened after an inflammatory or pathological disturbance has taken place, progressing to where it is amenable to bacterial infection. When the explosion comes you must know that there has been something wrong for a long time. And so I conclude that we rarely have any such thing as acute appendicitis as an entity. It is only that the patient's pain and the doctor's mental activity have become acute.

Purgatives should never be given to appendicitis patients, or in fact to any abdominal cases that are surgical or likely to become so, pending diagnosis. Purging adds from 25 to 50 per cent. to the mortality.

When I operate for appendicitis I usually take the appendix away with me.

There is only one time to operate for appendicitis and that is as soon as the diagnosis is established. The patient will stand more and better surgery early than when he is half dead.

H. O. PANTZER (Indianapolis): When shall we operate for appendicitis? Operate before it occurs. In other words, I disagree with the recent speaker—we do have acute appendicitis, but it is rare—only about 2 per cent. of cases. I have found the appendix completely inflamed, and the adjacent bowel negligible, but in 98 per cent. of cases the adjacent parts are inflamed and if diagnosis can be made in the early stage operation should be at once. In 98 per cent. of cases you will find anatomical irregularities which pertain to the sigmoid, which is twisted and angulated. You will find the efferent ileum angulated and enlarged. In these cases if you ask the patient, "Did your mother ever tell you that when you were a baby you would cry out?" in nineteen times out of twenty they will give an affirmative answer. In other words, we have a sub-acute appendicitis of long standing in almost all cases, and then later an infection of these parts. Look at the sigmoid and ileum and you will find them inflamed. The time will come when we will operate on the new born and remove the appendix at that time, and more than that, remove infection.

EDWARD E. EVANS (Gary): I had a case about five weeks ago that I would like to cite. A man forty years of age walked into my office and gave a history that five days previously he had eaten

cucumbers and had indigestion; he had vomited every day since, but had no treatment except physic. He had been working as a switchman for two years with only one week's vacation. On examination there was tenderness at McBurney's point, right sided rigidity, and a temperature of 99.8. I sent him to the hospital for a white blood count, and then told him to go home and put on an ice bag. He walked down the stairs, climbed into a street car, walked to the hospital, and then walked two blocks home, put on an ice bag and went to bed. The technician at the hospital called me about 2:00 o'clock and said the blood count was 48,000 white. I did not know what that indicated, so I went over to see the man. He was sound asleep and I had quite a time waking him. He was lying with his right leg elevated. I told him he would have to go to the hospital to be operated and he said he was perfectly comfortable and had no pain, but I insisted that he should go. I called a surgeon and told him the history of the case and he said it was not appendicitis, that it was probably something else. I asked him to come over and examine the man and he did so. By the time we got the patient to the hospital his temperature was 100.4. After examining the patient the surgeon said I was right, but that he never saw a case of appendicitis with a white count of 48,000. We opened this man and found an elongated gall bladder, eight inches long, one and one-half inches in diameter, containing three large stones. The tip of the gall bladder was exactly under McBurney's point, and the appendix was pushed down under the tip of the gall bladder.

Most of the essayists have spoken of the relative value of points in making diagnosis, and it has been stated that history would rank about 70 per cent., physical examination, 15 per cent., and x-ray and laboratory, 15 per cent. I think that will be well borne out in this case. The laboratory examination threw light on the case, that there was an infected process with a high degree of resistance developed. The operation proved that it was not appendicitis, and verified the white blood count.

W. H. FOREMAN (Indianapolis): Some important facts have been overlooked in the discussion of this paper, and some questionable statements and methods advocated should be challenged.

Dr. Pfaff raises the question as to why the public is skeptical in regard to operations for chronic appendicitis. I believe the answer to his question explains why it is difficult to get patients to the operating table. There is no doubt that genuine cases of appendicitis should be operated. If the case is acute, it may be operated without careful examination; if chronic, we are inexcusable if we do not make a careful examination. I very much regret disparaging remarks concerning physical and other examinations in chronic abdomens when we have plenty of time to examine the case.

In my experience in the examination of chronic abdomens, 35 to 50 per cent. of the operated cases have post-operative symptoms similar to the pre-operative symptoms. Recurrent pain in the right side of the abdomen is insufficient evidence upon which to base a diagnosis of chronic appendicitis, or any other chronic abdominal organic disease.

The reason the public is skeptical is because recurrent abdominal pain and abdominal tenderness is too frequently diagnosed as chronic abdominal disease, and operated with only temporary relief in a large per cent of the cases.

The most careful and painstaking examination is often incomplete, but with careful histories, physical, x-ray and laboratory examinations, there will be fewer medical and surgical failures in the treatment of chronic abdomens. In dealing with chronic abdomens, the surgeon cannot afford to ignore modern diagnostic methods any more than can the medical man ignore surgery when indicated.

IODINE IN THE TREATMENT OF EXOPHTHALMIC GOITRE*

HISTOLOGIC CHANGES OBSERVED IN THE THYROID GLAND

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Two years ago I had the honor of presenting before you the results of a study on the effects of ligation of the thyroid vessels in exophthalmic goitre and correlated the clinical course following ligation with the histologic changes that take place.¹ At that time I mentioned in the discussion that the involution changes noted in the ligated glands were in a general way similar to the changes observed by me at that time in a small group of cases of exophthalmic goitre that had received iodine previous to thyroidectomy. This evening I wish to present to you a general review of the results of the administration of iodine in the treatment of goitre.

The use of iodine in the treatment of goitre is recorded in the literature by Roger² from the University of Salerno in 1170. During this period iodine was administered in the form of ashes from sponge and seaweed. It was not until 1820 that iodine was recognized by Coindet³ as the active principle. Soon after Chatin⁴ demonstrated that small doses of iodine would prevent the development of endemic goitre. From these reports iodine became generally used in Europe, but it was soon learned that some patients with goitre were not benefited and many were made worse. The popularity of iodine in the treatment of goitre was markedly reduced following Kocher's⁵ pub-

lication in which he described a syndrome that he noted following the administration of iodine in a group of patients with simple goitre. This he called "Jod Basedow." This warning brought the use of iodine almost into disrepute until Marine⁶ and his associates revived the work of Chatin as to the efficacy and safety of the prophylactic use of iodine in endemic goitre, and his extensive experiment conducted among the school children of Akron, Ohio, proved the point beyond any question of doubt that small doses of iodine prevent adolescent goitre.

Plummer⁷ in 1922 resumed the investigation of the question why some patients with goitre are benefited by the administration of iodine while others are not. This study soon revealed that iodine produces a marked remission of symptoms in patients with exophthalmic goitre but it has no therapeutic value in toxic adenoma while some

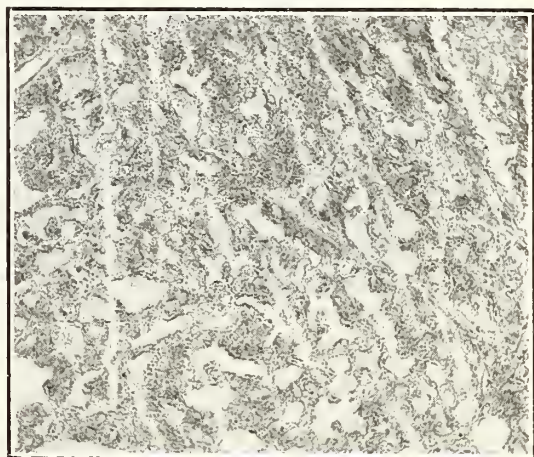


Fig. 1 x50. Showing hypertrophy of the gland without the administration of iodine. Notice the absence of colloid and the relatively small size of the acini.

patients with non-toxic adenoma have been noted to become toxic when iodine was administered to them. The wonderful results achieved by Plummer and his associates in the treatment of exophthalmic goitre at the Mayo Clinic have recently been corroborated by Starr⁸ and his associates at the Massachusetts General Hospital while here and there are still a small number of clinicians who regard iodine in the treatment of goitre as ineffective and even dangerous.

As the therapeutic effects of iodine are not equally beneficial in all forms of goitre, it is important therefore to understand clearly the pathologic anatomy and physiology of the thyroid gland in order to arrive at a correct diagnosis and treatment.

Goitre may be divided into two groups—non-toxic and toxic. In the first group fall the adolescent goitre and the nodular goitre of the adult.

The goitre of adolescence is essentially a colloid goitre. The gland is uniformly enlarged due to the presence of a large amount of colloid sub-

*Read before the St. Joseph County Medical Society, January 27, 1925. Most of the work reported in this paper was done at the South Bend Medical Laboratories of which Dr. Giordano is director.

stance produced by overstimulation of the gland by lack of iodine. Because of this deficiency in iodine sufficient thyroxin cannot be elaborated and a constant stimulation results. Under this stimulation the gland unable to make thyroxin, stores colloid.

Administration of iodine will prevent, but will not cure such goitres because iodine alone cannot place the gland at rest but desiccated thyroid extract or thyroxin will place such a gland at rest and allow the excess colloid to be absorbed. The nodular goitre of the adult is a gland which contains circumscribed adenomatous nodules of colloid

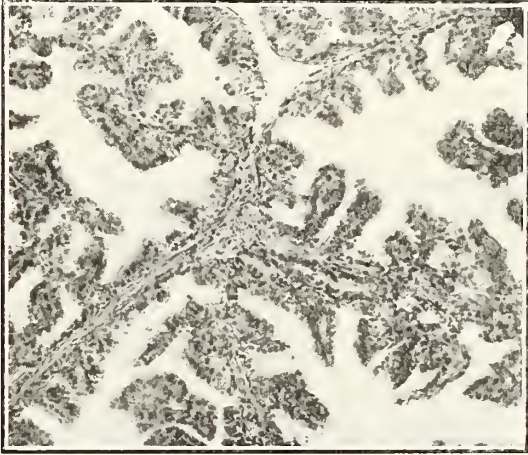


Fig. 2 x100 is a higher power of Fig. 1 showing the high columnar epithelium and infolding of the acini.

or foetal type in which haemorrhage, fibrosis and calcification is very often found. The acini composing these nodules are lined with cuboidal epithelium and contain colloid material. These new masses of acini have arisen through similar stimulus as that causing colloid goitre. This gland tends to grow and should be regarded as a potential toxic goitre and treated as such before it can exert its possibilities. Clinically, however, this group as such presents no symptoms other than those of an enlarged gland.

In the second group fall the toxic adenoma and the exophthalmic goitre. This group is pathologically distinctly different from the other. In exophthalmic goitre the gland is relatively small and uniformly enlarged. It has a characteristic meaty appearance. The acini are relatively small containing little or no colloid and are lined by a high columnar epithelium (Fig. 1 and 2). This condition is probably due to an overstimulation of the normal gland capable of reacting, causing first hypertrophy. As the gland becomes impaired because of its load, it undergoes hyperplasia and produces an incomplete product which Plummer believes to be thyroxin minus the iodine radical. This hypothesis is the only one compatible with the clinical picture of the condition before and after the administration of iodine. The toxic adenoma does not have the characteristic histologic

structure found in exophthalmic goitre and is essentially the same as in the non-toxic adenoma although at times there are found small areas of hypertrophy and hyperplasia and in addition there is the relatively constant presence of an hyperplastic thymus as I⁹ recently reported. The clinical picture of this condition is that of simple hyperthyroidism due to an excessive production of thyroxin.

The differential clinical division of toxic goitre into toxic adenoma or hyperthyroidism and exophthalmic goitre was made by Plummer. His classification marked a great advance in the diagnosis, treatment and prognosis of this group of cases.

He called attention to the fact that pre-existing adenoma become toxic usually after the third decade. The symptoms are similar to those of simple hyperthyroidism produced by the administration of excessive doses of thyroxin—namely tachycardia, tremor, increase of appetite, increase of metabolic rate and loss of weight and strength. Blood pressure tends to approach the hypertensive type because of the response of the heart to the increase in the amount of work demanded. Exophthalmos and gastro-intestinal crises are characteristically absent. Surgical removal of the adenoma completely cures these patients. In contrast exophthalmic goitre occurs more frequently in young people within weeks or months instead of years after noting an enlargement of the thyroid gland. In addition to the above symptoms of hyperthyroidism, the presence of thrills and bruit over the thyroid vessels, the tendency to gastro-intestinal crises, the presence of exophthalmos in 85 per cent. of the cases and a peculiar type of nervousness which is very intensive, affords sufficient data to separate these two groups of cases.

Patients with exophthalmic goitre rapidly improve following the intake of iodine. The basal metabolic rate falls sharply and the clinical symptoms improve correspondingly.

The administration of iodine as proposed by

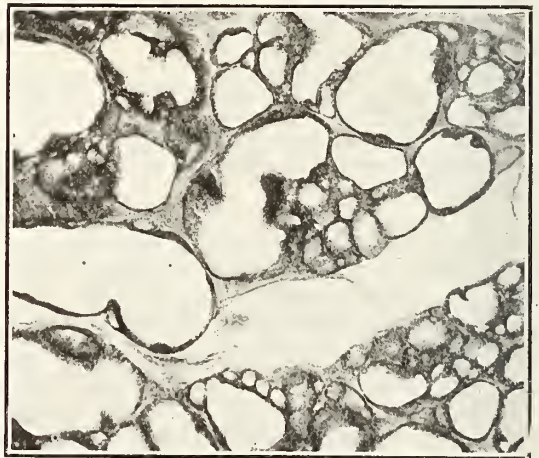


Fig. 3 x50. After the administration of iodine showing the dilatation of the acini with return to cuboidal epithelial lining.

Plummer is in the form of Lugol's solution given five to ten drops t.i.d. well diluted with water and followed by a half glass of water. In case thyroidectomy is decided upon, the dose is doubled, the day previous to the operation, the day of and the day after operation. The initial dose is then continued for four or five days to avoid the post operative crises which are so detrimental to thyroid surgery. With the institution of this treatment Plummer and Boothby have not noted a single deleterious effect in 600 patients with exophthalmic goitre so treated, while Pemberton reports that the mortality rate has now been reduced to 1.7 per cent. under such a regime.

The failure to obtain similar therapeutic results by some clinicians may be due to their indiscriminate use of iodine in both toxic adenoma and exophthalmic goitre. Plummer and Boothby recently pointed out that iodine should not be given to cases of toxic adenoma. In border line cases where the diagnosis is doubtful iodine may safely be given over a period of ten to fourteen days. If no improvement follows the iodine is discontinued. Despite the beneficial therapeutic effects obtained by the judicious use of iodine in exophthalmic goitre we must not lose sight of the fact that iodine has its maximal value in the

from a gland removed while the clinical symptoms were marked and show the typical hypertrophy of the acini. During 1921 and 1922 while studying the histologic changes that occur following ligation of the thyroid vessels in exophthalmic goitre I noted that involution changes such as are illustrated in Fig. 2 and 3 occurred in glands that had not been ligated but had received iodine.

CONCLUSIONS

1. Iodine when administered to children in goitrous districts prevents endemic goitre in the majority of cases.

2. Iodine when given to patients with exophthalmic goitre will produce an abrupt remission in most cases and is of great therapeutic value in the preparation of these patients for operation.

3. Great caution should be exercised when iodine is given to patients with adenomatous goitres, either toxic or non-toxic.

4. Iodine is not a curative agent for exophthalmic goitre since recurrence of symptoms have been known to follow the withdrawal of the drug.

5. In seven cases of exophthalmic goitre studied by the writer in which iodine was given before operation involution changes as described by Marine were noted in all of them.

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DRUGS IN TREATMENT OF HEART DISEASE*

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In choosing the subject, "Drugs in Treatment of Heart Disease," I do not wish to over-emphasize the importance of that phase of the treatment. It is perfectly true that if we were left to just one means of procedure it would not be that one. I am talking not from the standpoint of the patient's impression, or the standpoint of the practitioner's relation to his patient, as I thoroughly realize the necessity of giving patients something in order to treat them, or make them think they are properly treated, whether clinically it does any good or not. From the actual standpoint of benefit to the heart the other methods of procedure are probably vastly more important. Rest, graded exercise, physiotherapy, hydrotherapy judiciously used, do more to help the patient with heart

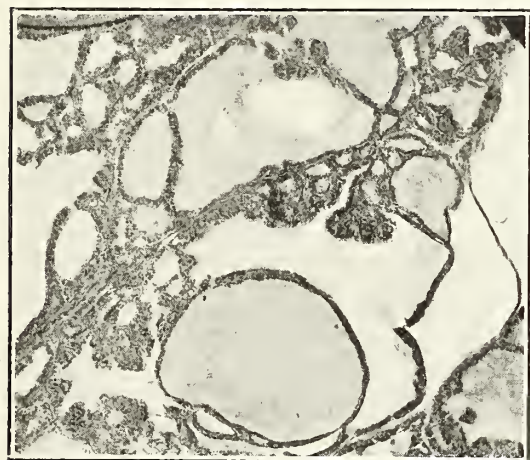


Fig. 4 x75. After iodine administration showing similar changes as in Fig. 3 but slightly more active.

preparation of the patient for operation since it has been repeatedly shown by Plummer, Starr and others that the symptoms will recur if the iodine is withdrawn.

Does iodine produce any histologic changes in the parenchyma of the gland? Before attempting to discuss this question it is important to establish a basis for comparison. The true histologic picture of exophthalmic goitre is best demonstrated by studying glands removed while the symptoms are active. The reason for considering only such glands as a basis for comparison is that in all probability the clinical improvements are closely paralleled by involution changes taking place in the gland. Fig. 1 and 2 are sections taken

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disease than all of the cardiac drugs. Drugs, however, bear a very important place in the treatment as an adjunct to these other measures. Many times rest alone will not accomplish the desired results, whereas rest plus digitalis will. On the other hand, digitalis with the patient up and around will not work the desired results.

To come down to the question of the treatment with drugs, I am led to believe, in observing it under different conditions, that digitalis has been given simply in a routine way more than most any other medicine. For instance, we treat stomach conditions or we treat the intestinal disturbances in infants legitimately and logically. With heart disease the first thing that springs into the average mind is 15 minims of digitalis three times a day. This is routinely used without much thought about what it is going to do or whether it will do any good whatsoever. We are led into the error of placing the drug in the position of a fetish, that in some way, somehow it helps diseased hearts, regardless of what they are, and when a heart is failing we must persist in pushing digitalis. Though a patient has been under digitalis for weeks and is going down hill you often find the physician increasing the dose and pushing it a little harder in the hope that in some way it will do some good.

Even to the point of poisoning digitalis it is used in that way. In recent years there have been called to our attention certain symptoms of digitalis poisoning that have not been appreciated before, namely, mental confusion, tendency to loss of consciousness, delirium associated with nausea, and vomiting. These are often misinterpreted as the symptoms of heart disease itself. In the last year I have seen several of this type of patients in whom the attending physician assumed that this indicated a more grave condition in the patient's cardiac state and was increasing the digitalis. Upon removal of the digitalis the supposed uremia, or toxic state, disappeared.

Because of these reasons I have thought it would be interesting to sum up as briefly as I can in a few minutes, just what the cardiac drugs will do and what they will not do. Realizing that this is a tremendous subject, I can only mention facts. I cannot discuss the whys and wherefores for these points.

Two of the drugs which are most commonly used for heart disease are strychnia and camphor. In almost every operating room camphor in olive oil is kept on hand for emergency cardiac use. The ambulance surgeon carries it and uses it repeatedly as an emergency cardiac drug. A great deal of experimental work has been done on camphor and strychnia, and I think it can be safely said that neither of these drugs have any direct effect upon the heart. Clinically, however, they may have an effect and especially in the critical states. The patient improves with their administration. That improvement is not due to any direct cardiac effect, but must be from the

general stimulation which these two drugs bring to bear on the respiration, the general nervous system and the muscles. We get increased vascular tone and increased muscle tone, even if there is no increase in the cardiac muscle tone. This indirectly increases the heart's efficiency and in that way the patient is benefited by camphor or strychnia.

In discussing the cardiac drugs, that which is the most important is the digitalis series, Digitalis pharmacologically has certain definite actions. First, it slows the pulse. It may do this in one of two ways: the vague center in the brain is stimulated and we get a central slowing. It is also true that the vagus peripheral ends must be stimulated because even after cutting of the vagus we may still get the slowing under digitalis. This slowing is marked especially in the tachycardias of diseased hearts. Consequently more time is allowed for diastolic filling of the ventricles.

Second, digitalis increases the strength of the cardiac muscular contraction. Thus the two combined bring about, first, increased cardiac filling, second, increased cardiac emptying. Therefore, while the general tone of the heart muscle is not primarily affected by digitalis, the resultant effect of the increased filling and emptying give an augmented cardiac output and indirectly this results in increased tone.

This presupposes that the muscle must be sufficiently normal to respond to these physiological effects. If it is not then digitalis elicits very little increased activity. Therefore in diseased conditions with inhibited muscle strength, such as acute and chronic myocarditis, it is impossible to support by digitalis a muscle incapable of being supported. In consequence digitalis shows very little effect in such cases and should be discontinued.

Third, digitalis causes a block at the auriculo-ventricular junction. This is induced by a slowing of the induction time at the bundle of His and has a very important place in cardiac therapy, as I will mention later.

Fourth, digitalis in pharmacological doses contracts the peripheral vessels, but this is definite only under large doses. In the ordinary dose used in therapeutics, digitalis probably has no effect whatsoever upon the vessels. This is true whether normally they are contracted or dilated. Also it does not affect the blood pressure insofar as this change is brought about by variation in the blood vessels. It may increase the blood pressure provided the cardiac effect is pronounced and the output of the heart is greater, but so far as the vessel itself is concerned it does not raise the pressure. These are the pharmacological effects of digitalis. It has some other biological effects, which we will not discuss.

Digitalis has a definite place in the treatment of certain types of cardiac conditions. The one that stands out prominently and has given digitalis its favorable place in therapeutics is its effect upon

auricular fibrillation with decompensation. These cases are very common. The auricular fibrillation with the absolute irregularity of the ventricles may be the primary cause of the decompensation. If the decompensation has occurred from other reasons, the auricular fibrillation and ventricular irregularity may increase still further the cardiac inefficiency. Digitalis works there by its ability to cause a block at the bundle of His between the auricles and ventricles. It will slow down the impulses that have been bombarding the ventricles at the rate of 400 per minute to 200 per minute. The ventricle will respond then to about or less than 80 or 90 of these, and consequently the rhythm will be slower and more regular. The slowing down of the rhythm allows greater filling and emptying in the time between beats, and therefore the heart is much more efficient in most cases.

Secondly, digitalis has a marked effect in another type of heart diseases, namely, those cases that are associated with rapid pulse, dilated heart and symptoms of congestive heart failure. In that type of patient we get two pharmacological effects of digitalis, namely, increase in cardiac output and slowing of the heart. Therefore patients with this type of heart, provided the muscular degeneration has not gone too far, are improved distinctly by digitalis.

When you pass those two points digitalis has very little effect upon the other forms of heart patients and in the majority of them may just as well be saved.

To take up the question of methods and dosage, digitalis may be given in three ways—by mouth, by hypodermic injection, or by rectum. When given by mouth the dosage may be administered in one of two ways, the so-called accumulative method, or the massive dose principle. The accumulative method means the giving of digitalis in small doses three or four times a day, expecting to reach the full efficiency in the course of two or three days. Digitalis is absorbed very slowly when given by mouth in this manner and does not begin to have much effect under eight to twelve hours. It does not have a full therapeutic effect in much less than twenty-four hours if given in 15 minim doses four times a day. Also it must be given in at least that dosage to get much effect because it is excreted at the rate, approximately, of twenty-five minims of the tincture a day. Therefore, unless we give it in doses much larger we will not get much immediate or accumulated effect.

The second method is the complete digitalization method. The average individual weighing 150 pounds can stand about 20 c.c. of tincture of digitalis (properly standardized) before the full therapeutic effect is reached. The dose can be given up to this amount by mouth in twenty-four hours' time. The usual method is to give 8 c.c., repeat in six hours another dose of 6 c.c., and then six hours later give approximately 4 c.c. more. In other words, fully digitalize the patient in less

than twenty-four hours. That method will work results. However, unless it is very closely supervised it has considerable danger. Unless the physician is in constant touch with his patient it is usually not wise to attempt this radical procedure. You will find individuals who are rather susceptible to digitalis and you may get symptoms of poisoning by this method. The accumulative method, if enough is given, is preferable in ordinary cases. When I say "if enough is given" I wish to say frankly that much digitalis is thrown away because it is given in too small doses. To give 15 drops three times a day is not sufficient to digitalize the average patient. This means that not more than eight minims of the digitalis is given at a dose and that is excreted completely. Thus there is no accumulation.

Concerning the hypodermic administration, that is the best procedure for the rapid administration of digitalis. I am not going into the discussion as to what preparation is the best for hypodermic use. There are a great many on the market and many that are good for the purpose. By hypodermic administration, either intravenously or intramuscularly we get a very prompt effect. In ordinary conditions it is sufficient to give it in the muscle and there is much less danger in that way. Where there is not a great deal of stasis or edema we get the effect almost as quickly as we do by the direct vein route:

In certain cases one does not wish to use the hypodermic method over long periods and the patient cannot take digitalis by mouth. In those instances it can be given by rectum, either in the form of suppositories or in water or alcoholic solution. The alcoholic solutions tend to set up, after a time, a little irritation in the lower bowel. However, this may be relieved by cocain and thus the drug can be continued over a long time. It is used in this way to the best advantage in the nausea occurring after operations, or in the nausea which occurs in cardiac renal disease or in the decompensations.

There are certain contraindications for digitalis. It will not make a heart muscle that is degenerated sufficiently to cause it to be fundamentally weak to contract more strongly. It can not exact any force upon a muscle that is so affected which will improve the contractions. In the cases of myocarditis of severe grade, or in endocarditis with associated myocarditis, digitalis should be used sparingly. This is especially true in the myocardial changes that occur in diphtheria and here digitalis should be used with great caution.

Second, there has been some argument against using digitalis in cases of aortic insufficiency. Some say it should not be used at all in this condition, but in clinical experiments that has been disproven. Digitalis does not seem to hurt that type of heart if used properly and in small doses. Especially in the aortic insufficiency associated

with hypertension digitalis will give better results in the smaller doses.

In cases of heart block it has been known for a long time that digitalis should not be used until the block has become complete. Strophanthus is so irregularly absorbed by mouth that it should never be used. Strophanthin hypodermically probably has a little different action from digitalis. The pharmacologists have not definitely proven this, but there is probably an increased heart tone which is obtained by the strophanthin which is not obtained by digitalis intramuscularly or intravenously. It is however, more dangerous, particularly if used intravenously.

Of the other drugs belonging to the digitalis series one can only say that they have no advantage whatsoever over digitalis. Many of them that might be mentioned have some effect after digitalis has been used, but that simply means that digitalis was not used in its proper dosage.

Sparteïn has been shown pharmacologically to injure the heart muscle rather than help it. It gives a larger pulse wave and volume, and this simulates increased systolic pressure but it weakens the heart muscle rather than strengthens it.

There is another group of drugs that I wish to mention. It is unfortunate that they have not been used more in cardiac disease. That is the theocin-cafeïn group, the latter quite toxic if used in the large dosage necessary. These drugs decrease peripheral resistance, are diuretics and tend to increase the cardiac tone. Therefore, the drugs of the caffeïn group would seem to be the ideal for use in decompensation, rather than the digitalis group.

There is beginning to creep into the literature more and more information on the use of these drugs, theocin particularly, for instance in angina pectoris. This should be used more extensively in the treatment of heart patients. They have this difference: If you give caffeïn and its group you give it in full dosage, while the digitalis group is usually used in small dosage and thus the former is more dangerous. Therefore, if you use caffeïn it must be carefully controlled.

I have run through these points briefly, and rather dogmatically. You may find some in which you do not agree, but I have attempted in this short time to epitomize the general pharmacologic and, as I know them, the clinical results of the cardiac drugs.

DISCUSSION

ROBERT M. MOORE (Indianapolis): I think the treatment of heart disease occupies a very important place in medicine. It is not necessary to stress the importance of rest and other methods of treatment, as we all agree as to their place in the proper treatment of heart disease. Drug therapy in the treatment of heart disease is often misused, and I think the general practitioner should be acquainted with the more common drugs which can be used in the treatment of heart disease

and know when they are indicated. Before we can apply drug therapy intelligently, a diagnosis of the etiological factors responsible for the heart condition, the structural defects present, and the functional disturbances noted, should be made. For example:

Luetic heart disease with aortic insufficiency, aortitis, and failure of the anginal type requires antiluetic treatment properly applied. The iodids and mercury particularly should be used. If there is a beginning aneurysm, do not use arsenicals unless they are given in very small doses. There is no indication whatsoever for digitalis in this case. However, if we have a case of rheumatic heart disease with mitral stenosis, auricular fibrillation, and failure of the congestive type, digitalis is the one drug indicated. Think of the hypothyroid heart disease, the cases in which we use the thyroid gland substances, and the hyperthyroid heart, in which lugol solution and surgery offers relief. The diphtheritic heart disease is becoming less because of our methods of prevention. I hope Major and others who are using liver extract will be able to offer relief to the large per cent. of sufferers with hypertensive heart disease. Keep in mind the nervous heart patient, the so-called effort syndrome type. For this type of patient, use sedative drugs and reassurance. Digitalis is contra-indicated in an uncomplicated case of nervous heart disease. In the early menopause type, precipitated by surgery, I think ovarian substance is of value.

From the above cases you will note that the etiological factor producing heart disease does determine, in a great measure, the drug therapy to be used.

Digitalis, as Dr. Bond said, is the most important drug used in heart disease; however, we must inform ourselves when to give it, how much to give, and the type of case in which it is indicated. An abnormal cardiac sign or symptom is not always an indication for digitalis. There are three indications: First and most important, in evident congestive failure (edema, dyspnea, cyanosis) with or without auricular fibrillation or flutter. Second, in permanent auricular fibrillation or flutter in the absence of congestive failure. Third, as a therapeutic test. There are people who are weak, have heart pain, shortness of breath, no hypertension, who do not have congestive failure, auricular fibrillation or flutter, yet digitalis is of advantage. In congestive failure it is indicated with or without arrhythmias, even in the presence of aortic insufficiency, hypertension, pulsus alternans, or premature beats.

The dosage of digitalis has been discussed. I think the three methods of administration which Dr. Bond mentioned are the ones of choice. I use the powdered leaf because I can give it more accurately. The drop method is inaccurate because the droppers are of unequal size. I have seen it take fifty drops to make 1 cc. I do not like the massive doses in twenty-four hours, neither

do I like the prolonged method of digitalizing the patient. The average individual requires $1\frac{1}{2}$ grain of the powdered leaf to each ten pounds of body weight, this to be given within thirty-six to forty-eight hours. The body eliminates or destroys about $1\frac{1}{2}$ grain of digitalis per day, and this should be taken into consideration when estimating the amount necessary for a case per body weight. It is important especially in chronic fibrillators to keep up a daily maintenance dosage.

Quinidin is of value in transit or paroxysmal auricular fibrillation, or in permanent fibrillation of rather short duration, but should never be given in auricular fibrillation with definite evidence of congestive failure, or in cases which have not done well under the usual methods of heart treatment. It has been tried in cases of paroxysmal auricular tachycardia, also in premature beats; however, the results have not been satisfactory. Quinidin should be given in three to four grain doses. If this amount does not prove toxic, the dosage can be increased to six grains, and as many as five doses a day may be given. The patient should be watched carefully.

Diuretin, calomel, calcium chloride and theocin are our best diuretic drugs in cardiac edema. Novasurol is being used with excellent results in cases with marked edema where nephritis is not present.

SAMUEL E. EARP (Indianapolis): I think it is refreshing to have a paper on therapeutics. I think one reason the men in the smaller cities are so successful in their practice is because they study the use of drugs and know how to apply them. They are superior in many instances to the men who live and practice in the cities, men who attempt to get something by their laboratory work and animal experiments, because the latter forget the practical results that are obtained by the wise giving of drugs.

When it comes to rest curing heart disease, it will not do it and the thing for us to do is to study the action of drugs and know the condition of the individual.

Many of us have given digitalis when we were not sure just how it acted. In acute fibrillation, where the patient will not respond to rest or anything else, that patient will get well under digitalis. I do not believe many patients are now in the cemetery because they received large doses. I agree with Dr. Babcock, who says that if large doses are given we should gradually come down to the small dose. I believe with him that the patient should be in bed and that a nurse should be beside the patient. I have never given it except under those conditions, and then only to demonstrate it to my class at the university. I believe we can commence with the ordinary dose of 15 to 20 minims every two or three hours and then increase the quantity until we get the full effect.

In the question of strophanthus, I heard Stengel say that strophanthus stood second to digitalis.

I think they are about one hundred miles apart. It is known that if digitalis is given and then strophanthus when the patient has been digitalized it may cause dangerous symptoms. They are physiologically incompatible in every sense and should not be given together.

In regard to camphor. It has been definitely shown that camphor never stimulated the heart and never did any good in pneumonia. It is worthless in that sense, but it has the action which was described by Dr. Bond.

GEORGE S. BOND (closing): I wish to thank Dr. Earp for what he said, and I agree with him in what he said about the use of these drugs.

The question was raised about preparations. Unfortunately, we do not have any preparation as yet of the active principle of digitalis in a form which can be given. We have to depend largely upon the Galenic preparations of which we have the extract, the tincture, the powdered leaves, or the infusion. One man has his preference and another man has a different one. There is just one thing to be said on the point. If you have the equivalent amount of digitalis in any of the preparations and give it properly the patient will get the desired benefit. Therefore each man may use his own choice provided those factors are carried out. Personally I like the tincture. In giving it one thing must be perfectly understood, that a drop of the tincture is nothing like a minim. In giving it it should not be given out of a dropper, but out of a measuring glass. In that way the tincture can be given accurately and good results obtained, provided you know you have a good tincture.

TRANSVERSE PRESENTATION

REPORT OF AN UNUSUAL CASE

H. D. FAIR, M.D.

MUNCIE

A mother of five children, youngest four years old, started in labor at 7:00 a. m. November 16, 1925. The pains continued at irregular intervals throughout the day. The membranes ruptured near noon but no physician was called. The following night the patient slept fairly well and was late getting up. When she did so she was astonished to behold a fetal hand and arm protruding through the vulva. She then sent for her physician, who saw her about 9:00 a. m. He worked with her for two hours, then telephoned for me. I saw the patient at 11:30. She said there had been no perceptible movements of the fetus for hours. The physician, a man with years of experience, said that he could detect no fetal heart sounds, so I presumed that we had to deal with a dead fetus, as it was now twenty-four hours since the rupture of the amniotic sac, and the fluid had all drained away leaving the uterus contracted on the fetus like a well fitting glove on the hand.

I approached the patient with the purpose of getting a general idea of the situation and found

both her right and left flanks empty. There was marked protrusion over the middle of the abdomen from above the umbilicus to the pubes, and nowhere else. The mass was firm and tense; slightly irregular in contour. It was difficult to get into the vagina, for the pains of thirty hours had forced shoulder, scapula and upper ribs down until the pelvic cavity was packed.

Believing the fetus to be dead, I announced my findings to the family and explained my idea of the easiest and only practical way out of the difficulty without harm to the mother, so advised an evisceration and possibly embryotomy, and was instructed by the physician and husband to "go ahead."

In order to get the correct "lie" I deemed it necessary to get my fingers into the uterus. In one of the pelvic quadrants I found an area where the pressure was slightly less than at the others, but not until the patient was profoundly anesthetized was I able to get my fingers beyond the rim of the superior strait. When this was accomplished I encountered a loop of cord which was *pulsating*! Now I must change my plan. A simple task becomes a stupendous one. I have never done a mutilating operation on a live infant, and never will if there is any other way out of such a dilemma. I again announced my findings and my intention to attempt a reposition and podalic version.

The exact position of the fetus was not yet clear to me, so after a few moments devoted to overcoming the resistance at the vaginal outlet, I slowly and with much difficulty got my hand into the uterus and found (now comes the remarkable part of my story) the fetal occiput depressing the

right bifurcation of the abdominal aorta; the breech and back was directly anterior, occupying the space between the mother's umbilicus and symphysis pubis.

With the fetal shoulder in my palm and the head at the tips of my fingers I attempted to dislodge the mass upward but failed. I then maneuvered around to the anterior until I found a groin, and decided that I could attach a fillet. Passing a loop of gauze packing strip over the end of my finger I carried it partially around the thigh; then insinuating my finger from the other direction was able to hook into the loop and bring it to the other ends outside the vulva. I now inserted my left hand and grasped the fetal neck between my index and middle fingers, and while I pushed up and to the right, traction was made on the fillet until the body began to move toward the left and downward.

Delivery was accomplished in less than one hour. While bringing down the legs one arm became extended up beside the head, so I was compelled to push the upper part of the torso back out of the pelvis until the arm could be released and brought down. There was some delay when the after-coming head reached the perineum, for the babe weighed nearly ten pounds. At birth he was limp, pale, and did not breathe for a few moments, but later gasped, cried, and lived.

After the placenta was expelled I examined the mother carefully and was pleased to know that there was practically no permanent damage to the birth canal. Convalescence was uninterrupted.

As is usual in many such cases, the family is too ignorant to appreciate either the risk or the service rendered.

VACCINATION FACTS

The propaganda for the public health cannot afford to overlook any evidence of the success of preventive medicine. The cultists that profit by opposing preventive medicine and the misguided sentimentalists of the anti-vaccinationist and antivivisectionist types are constantly alert to attack present-day practical hygiene. So long as published statements are accepted uncritically at face value, regardless of their authorship, by a large part of the public, it becomes important that the facts of modern medicine be circulated as freely and widely as are the pronouncements of the nonmedical healing cults. In the battle for what is best, the most effective weapon usually is the dissemination of truth.

The value of vaccination as a preventive of smallpox is so firmly established that it should not require mention, let alone defense. The physician and the public health official are not infrequently called on, however, to act as protagonists in the promotion of vaccination. New and telling facts are available in recently published statistics from California. According to the university physician, there has been no case of smallpox among the students of the University of California at Berkeley since 1907, when the regents adopted the rule that all entrants must possess satisfactory evidence of immunity to smallpox before they could be admitted. This is the record of perfection in a state in which more than 9,000 cases of smallpox were reported in 1924, making a case rate of 2.41 per thousand of population. Calculated on the

student population at the university, twenty-four cases were to have been expected, if vaccination had not been enforced. There were, in fact, cases of smallpox among unvaccinated employees, while all students were absolutely protected during a local epidemic in 1913.

Legge notes that the colleges of Massachusetts and New York have no record of smallpox. Both of these states have laws providing for the vaccination of school children, which again demonstrates the protection afforded by this public health measure. With this, we may contrast the situation in Utah, where health and school authorities are prohibited from excluding unvaccinated pupils from school or from requiring the vaccination of any person in the community. The University of Utah had a serious smallpox epidemic in 1922.

Eternal vigilance seems to be the price of many valued possessions. The unimpeachable good record of the policy of vaccination must be safeguarded against error. The United States Public Health Service has reported eleven recent cases of postvaccinal tetanus, not due to any contamination of the vaccine but to the use of bunion pads as a vaccination dressing. In view of the fact that 25 percent of one lot of these glue-coated felt rings showed the presence of tetanus organisms, the menace of the undesirable practice is obvious.

Physicians who value the blessing of smallpox vaccination should make every effort to prevent the use of improper methods of dressing.—*Journal A. M. A.*, Nov. 14, 1925.

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EDITORIALS

CANCER MORTALITY

Somewhere we have seen a trite saying to the effect that "statistics do not lie, but statisticians do." However, we feel that some statistics are obtained and analyzed, not with a view of proving any particular theory or line of reasoning, but with an honest desire to secure facts that will justify trustworthy deductions. One of the great problems confronting us today is that of cancer control, and interest in this subject has led to a consideration of clinical and statistical studies. The large life insurance companies are interested in the control of disease, from an economic standpoint, and it is but natural to assume that their investigations are very apt to be cold-blooded and devoid of sentimentality or the intent to prove any particular contention. Practically all of the large life insurance companies are intensely interested in the cancer problem, but our attention has been called to the investigations of the Metropolitan Life Insurance Company concerning this subject, and its analysis of cancer mortality among millions of policy holders. The information available possibly is more exact and more detailed than for any other comparable group in the population, and the company has just issued a little booklet concerning cancer mortality among insured wage earners and their families, which is an interesting contribution to the cancer question. This company operates in virtually every state in the Union, and in all the provinces of Canada. It includes in its membership all classes of the population, and all occupations are represented, including millions of housewives. The records of sickness and of death shown upon the claim forms of the company are much more complete than those available to the registration authorities of the country. The company, therefore, has deemed it desirable and in the public interest to display thoroughly the facts covering the period since 1911, or for a period of eleven years. Great care was taken in the analysis of the figure to insure that the quantitative characteristics of the trend of cancer mortality deduced are truly significant and are not mere chance deviations from the general level such as would occur in any collection of numerical data clustering about a mean. It is thought that through such investigations light may be thrown upon the whole problem of cancer control. A few of the out-

standing facts disclosed in the report have been summarized as follows:

1. Cancer was the fifth cause of death in numerical importance, during the period 1911 to 1922, being out-ranked only by heart diseases, tuberculosis, Bright's disease and pneumonia.

2. During the last two years of the period the relative rank of cancer as a cause of death was higher than in the prior years. In 1921, only heart disease and tuberculosis had higher death rates.

3. If a boy or girl once reaches the age of ten there is more likelihood of dying ultimately from cancer than from tuberculosis, or pneumonia. Heart disease, chronic nephritis (Bright's disease) and cerebral hemorrhage (apoplexy) are the only diseases which are more likely than cancer ultimately to cause the death of a male who has once reached the age of ten years; and only heart disease and cerebral hemorrhage are more likely to cause the death of a female who has already lived ten years. Of one hundred boys ten years old, the probability is that more than eight will eventually die of cancer. Of one hundred girls ten years old more than eleven will eventually succumb to cancer.

4. One dollar in every eleven disbursed in death claims by the Metropolitan Life Insurance Company is paid out on account of cancer. Tuberculosis and heart disease are the only diseases responsible for greater disbursements than is cancer.

5. The mortality from cancer has increased in the industrial population of the United States and Canada during the twelve years studied. In making this statement, allowance has been made for more accurate reporting and certification of causes of death—factors which would in themselves tend to raise the apparent death rate. It is believed that even after making further allowance for improvement in medical diagnosis, the conclusion would remain essentially the same. However, the actual increase in the cancer death rate has been small—much smaller than might be inferred from analysis of published crude death rates. It has been greater among males than among females.

6. The death rate has not been increasing uniformly at the several age divisions in life. There was probably a slightly declining tendency among females between thirty-five to fifty-five years and a significantly upward trend beyond fifty-five years in each sex. The more advanced the age, the greater has been the rate of increase. It is thus evident that the gravity of the cancer situation is concentrated on the older ages of life, not only from the standpoint of maximum incidence, but from that of increasing mortality. The possible slight fall between thirty-five and fifty-five years of age may mean that there has been some response to the campaign of education for cancer prevention in this age range, where persons are more amenable to instruction, come more often under medical supervision in the course of treatment for minor, acute illnesses, and apply, to a greater extent than those of more advanced age, the lessons taught through the public press and by health organizations. The observed slight improvement would then perhaps be, in part, the result of saving or prolonging the lives of increasing numbers of persons affected with tumors, through the medium of early surgical operation.

7. Although cancer is seldom regarded as an important disease in childhood and adolescence, a considerable number of deaths from this cause occur before age twenty-five. More than 2 per cent. of all the cancer deaths of these Industrial policy holders were of persons under twenty-five years. Practically one-third of all of the deaths from cancer of the brain, one quarter of those from cancer of the bones, the kidneys and supra-renals, and one-eighth of the mortality from cancer of the lung and pleura occurred among policy holders under twenty-five years of age. The type of malignant growth known as sarcoma is responsible for most of the deaths of young children reported as due to cancer. In considering these

figures it must be borne in mind that the insured population in the Industrial Department of the Metropolitan Life Insurance Company is richer in young persons than the general population.

8. Deaths from cancers of the stomach and liver, the female genitals, and of the peritoneum, intestines and rectum, together constitute over two-thirds of the mortality from cancer. For cancers of the stomach and liver, there is little difference in the death rate of males and females. For cancers of the peritoneum, intestines and rectum, the death rates among women are much higher than among men. The relatively high rate from these cancers, together with those of the female genital organs and of the breast, are the factors which made the female death rate for cancers as a whole higher than that for males. Buccal cavity and skin cancers, especially the former, run much higher among men.

9. This relatively high mortality among females from cancers of the peritoneum, intestines and rectum conforms to what has been observed for certain other abdominal diseases. Intestinal tuberculosis and tuberculosis peritonitis, contrary to other forms of tuberculous disease, also register higher mortality among women than men. We know of no satisfactory explanation for this. The death rate of females is also higher than for males for a more heterogeneous group of intestinal conditions including intestinal adhesions, "chronic constipation," fecal fistula, intestinal gangrene, intestinal hemorrhage, intestinal paralysis, etc. This, again, suggests a relationship between the diseases of the female sex organs and those of the intestinal tract.

10. The death rate for cancer of the stomach and liver, for all color-sex-age classes combined, has shown no decided upward or downward tendency. In one color-sex group alone, colored males, was there an unmistakable rise.

11. Cancers of the pharynx and of the esophagus are rare among females; but growths of the liver and gall-bladder are much more frequent among females than among males.

12. The female genitals, next to the stomach and liver, are the most important seat of malignant disease. Among colored women, the death rate for female genital growths is even higher than for the stomach and liver. There was practically a stationary death rate during the twelve-year period, although a definite rising tendency is in evidence for both white and colored women in the age-group of sixty-five to seventy-four years. More than eleven-twelfths of this type of malignant growth are seated in the uterus among white women and about 97 per cent. among colored women. The death rate among colored women from uterine cancers is excessively high.

13. The upward trend of the death rate for cancers of the intestinal tract has been more pronounced than for any other group of malignant growths, particularly among the whites of both sexes. Among colored females the only significant rising tendency shown in this group was at fifty-five to sixty-four years.

14. More than 60 per cent. of the mortality from this group of cancers resulted from growths in the small intestine or in some part of the large intestine other than the rectum or anus. About 31 per cent. of the deaths were due to rectal and anal growths while 6.5 per cent. were from cancers in the mesentery or peritoneum.

15. Rectal and anal cancers exact a particularly heavy toll of life among negro women, in fact, they constitute the only instance in the entire group of malignant growths of the peritoneum, intestines and rectum in which the mortality among colored persons exceeds that of the whites. Further research is obviously indicated to determine whether colored women suffer more than white women from rectal and anal ulcers, abscesses, and other inflammatory processes. If so, do such conditions frequently develop into malignant growths?

16. Breast cancers cause 13.5 per cent. of all deaths from cancer among white females; the rate runs higher among colored women than among the white. Its course has been upward for white women in one age group only:

fifty-five to sixty-four years. For both white and colored combined, and at all ages combined, there was no material change in the course of the mortality from this cause.

17. Cancer of the buccal cavity was responsible for 8.9 per cent. of all cancers among white males and 6.9 among colored males. Only 1 per cent. of deaths from cancers among females was due to buccal cavity growths. The death rates run higher among white than among colored men, but with women the situation is reversed.

At all ages combined no significant upward or downward trend in the death rate was observed for any color-sex group. The rate declined among white males aged seventy-five and over and among colored males at forty-five to fifty-four; also among white females at fifty-five to sixty-four. Most of the deaths result from growths of the tongue and jaw.

18. Cancer of the skin was responsible for 4.1 per cent. of all cancers among white males; among colored males, for 2.1 per cent.; among white females, 1.8 per cent., and among colored females, .9 per cent. The outstanding fact in the mortality statistics of cancer of the skin is its high death rate among white persons as compared with that among colored persons. The mortality among white men in this experience was $3\frac{1}{2}$ times that for colored men and the death rate among white women was almost $2\frac{1}{2}$ times that for colored women. The very pronounced color difference suggests an important field for investigation.

19. Cancer of the bladder, the lung and pleura, and, more particularly, the larynx, register higher death rates among males than among females. Cancers of the kidneys and supra-renals show no sex incidence.

20. Cancer is increasing strikingly, among men, in a number of organs or sites which are not now segregated for statistical study.

SOCIALISTIC MEDICINE

That there is a growing sentiment in favor of paternalistic or socialistic medicine can not be doubted. We see it on every hand in connection with the increasing activities of state controlled and state managed enterprises that have to do with the health of the people. Very naturally those who are a part of the system, especially the ones drawing salaries, are advocates of the system and the sponsors of propaganda favoring it. Other supporters are the lay uplifters who have to find some vent for their surplus energies and find the medical field one that offers abundant opportunity.

It would be well for us to analyze the proposition in a consistent and unbiased manner. There can be no question of doubt concerning the need and the value of education concerning health matters. Until recent years public health activities were largely educational but now there is a growing sentiment to the effect that public health activities should be enlarged to the extent of taking on the actual practice of medicine. This is evidenced in a variety of ways, but more especially through the development of laboratories and clinics. The Sheppard-Towner Act was intended to further education, but if we can believe the arguments put forth by its defenders and supporters the time is ripe for extending the benefits beyond education and assuming the prerogatives of the medical man. The final results will be disastrous, for socialistic medicine will fail just as socialistic enterprises of any kind fail. Theoretically the idea of having the state furnish service

of any kind and description sounds good, but it leads to a loss of individualism and the development of a spoils system that defeats individual freedom of which we boast so much.

This tendency toward the socializing of medicine is due primarily to the apathy and indifference of the medical profession to the needs of the people. We have ignored the opportunity offered to educate the people concerning health and how to care for it, and others have taken up the work that we should have done. We have neglected to show the people the difference between a highly educated and well trained medical man and the medical pretender or quack. We have shown little or no interest in public health matters, even when consulted, except during the rare times when a serious epidemic is threatening the people. We even have encouraged and aided lay persons to engage, in uplift work in connection with the promotion of health, only to find that when once started the lay individuals and organizations divorce themselves from us and assume our prerogatives even to some phases of the practice of medicine. We have encouraged and even aided in the establishment of free clinics of fifty-seven or more varieties, and we have done much to further the idea that sickness is something that is going to be cared for, no matter what the financial status of the patient may be, and oftentimes without money and without price. We have encouraged hospitalization and expensive nursing in altogether too large a proportion of sick people who could neither afford such care nor needed it, and because we have encouraged these expensive tastes which people in moderate circumstances could not afford to gratify there is a growing demand for the furnishing of such attention wholly or in part at public expense. Where it all will end is not a matter of guess work, but is quite a certainty as to the ultimate result of creating socialistic, or perhaps we might call it communistic medicine, with all of the ills that go with such a system.

Isn't it about time for us to adopt means and measures whereby people can help themselves instead of being helped? The encouragement of the idea that the world owes any man a living is all wrong, for the world owes no man anything unless he earns it. As a community, we owe every person in it the privilege of having the necessities of life and his care during sickness, but never at the expense of initiative and self-reliance. God forbid that the milk of human kindness ever ceases to flow from the souls of men, but let us not dispense our charity needlessly, lest we tear down self-respect and increase our present too-large number of undeserving dependents. Charity, under any guise, often destroys initiative and self-reliance. Social service workers have discovered that the average person who finds it easy to get along without working as a result of assistance, is quite willing to continue not working.

THE FORD HOSPITAL

A few years ago Henry Ford, alleged to have been provoked because some surgeon charged him a little more than would be charged a patient of ordinary means, concluded that he could run a hospital much as he runs his flivver plant, and, therefore, he established the Ford Hospital at a cost of several million dollars and service in which he announced would be at a flat fee. Recently the Ford Hospital has announced that the flat rate system will be abandoned, and that the patients will be charged on an income basis which, on the whole, is the custom ordinarily followed by the medical profession in making charges. Mr. Ford differs in one respect in that he places a maximum limit of one thousand dollars as a surgical fee, and a maximum limit of seventy dollars a week for medical charges. The flat rate system in ten years resulted in a deficit of two million four hundred thousand dollars which Mr. Ford has been called upon to make up. It was the idea of making up this deficit and, if possible, doing away with the possibility of having any deficit in the future that led to a change in the system of charges.

In commenting on this change of policy on the part of the Ford Hospital, the Bulletin of the Wayne County (Detroit) Medical Society says that the new policy is in line with the progressive policy pursued in the Ford industries. It was the flat fee, pay-as-you-enter idea, treating the rich and poor alike, that has been objected to by the medical profession. It was felt that Mr. Ford's organization was entering into competition with legitimate professional men on an unjust and undemocratic basis inasmuch as Mr. Ford's organization was backed by unlimited means which were available for any and all deficits which might arise. In connection with the fee system, it should be remembered, as pointed out by the Harbor Hospital (Detroit) Bulletin, that our great charity or free clinics, including our city hospitals, are manned by the medical profession, without compensation. It also should be remembered that people of wealth demand more than ordinary service and plenty of it, the most exacting kind. Their prominence adds responsibility to their care. They occupy the most expensive quarters and nothing in nursing service is overlooked. Can there be any logic in asking the doctor, on whom so much responsibility rests, to render a usual average bill. Commenting further on this matter, the Wayne County (Detroit) Bulletin says, "If it is Mr. Ford's desire, and we believe it is, to serve the people of the United States and Detroit to the very best advantage, his hospital facilities soon will be made available to members of the medical profession engaged in private practice as opposed to the present plan of employing full time doctors to serve as cogs in a great wheel. People naturally and universally prefer to choose their own doctors, and after all, why shouldn't they? Medical leaders, men who by their ability and long study

have built for themselves a reputation, rarely are found with their personalities submerged in any institution."

AUTOMOBILE INSURANCE FOR PHYSICIANS

The business manager of the American Medical Association is investigating a proposition to rate physicians as preferred risks for automobile insurance and grant them discounts of from twenty to twenty-five per cent from the ordinary rates. We have no objections to offer if one or more well known and trustworthy companies are willing to make a flat preferred rate to any and all physicians, with no strings tied to it, but we are opposed to any plan that means group insurance, a discount if a certain amount of business is written, or that requires boosting on the part of medical societies. In other words, if physicians are entitled to be classed as preferred automobile insurance risks, and entitled to reduced rates on that account, let the insurance be placed on that basis and sold on its merits. We are opposed to the selection of one company in which to place the automobile insurance of physicians, and we are opposed to the placing of insurance with companies that do not have recognized agents or representatives in every populous community so that in case of disputes, action against the company can be brought without the necessity of having the policy holder go to another state where the offices of the company may be, or even to a distant city in the state where the policy holder lives. The Indiana State Medical Association has had an unfortunate experience in selecting and recommending an automobile insurance company to its members, and in consequence Indiana doctors are not very likely to take kindly to any proposition for supplying them with automobile insurance at reduced rates if there are any strings tied to the proposition or any possibility of suffering as a result of technicalities or any circumstances that would not be encountered when holding policies in any of the reputable insurance companies and for which they pay regular rates. Any kind of insurance placed with almost any kind of a company is all right as long as you do not have a loss, but the policy holder wants to feel that if he has a loss the company in which he carries the insurance will take care of him in an entirely satisfactory manner. Generally speaking, anything that is cheap in the sense that it can be obtained at less than prevailing prices, in the end proves to be expensive. If physicians are entitled to be classed as preferred risks, then all the better class of insurance companies should consider them in that light, but we are distinctly opposed to any effort on the part of the medical profession, or any portion of it, trying to get reduced rates because of numbers, or because any company is willing to cut the rate in order to secure the business. We are opposed to contract medical practice and the effort on the part of societies or companies to se-

cure their medical and surgical services at reduced rates, and it is quite likely that local insurance representatives would have a similar feeling if members of the medical profession attempted to secure insurance at cut rates as a result of numbers or placing the insurance in a group.

COST OF HOSPITALIZATION AND NURSING

We have had much to say concerning the inability on the part of the average patient to pay the excessive cost of hospital care and trained nursing in so many instances when such care was not actually necessary. The average home is or may be well lighted, well ventilated, and contains such usual conveniences as bath room, running water, electric lights, and uniform heating. There is no reason why patients living in such homes should be trotted off to a hospital for anything but the more serious and especially the surgical affections. They can be cared for at home in a very satisfactory manner with the assistance of a practical nurse, but at the present time such a course of procedure is made difficult through our tendency to encourage hospitalization and the employment of the highly trained and expensive registered nurses for nearly all of our cases. The result is that sickness for the average citizen sets him back financially far more than it should, and it is time to remedy the defect in our system by making it less expensive for the patient without in the least jeopardizing his care. In the first place, we must discourage rushing patients with trivial ailments to the hospital, and we must encourage the development of a large number of practical nurses necessary for assistance in the care of patients who elect to remain in their own homes when ill with anything but the more serious ailments or those requiring highly specialized care which latter amount to not more than ten per cent of all illness. To accomplish this it will be necessary to divide nurses into two classes, those with special training and those with limited training. The highly trained nurse would be necessary in hospitals and in the care of the more complicated cases whereas the nurse with the limited training, corresponding perhaps to our practical nurse of today, could be used in the home where simple nursing is all that is required. At all events, some means should be adopted whereby it will be possible for people in moderate circumstances to obtain the attention and service of a nurse at a reasonable cost.

THE GORGAS INSTITUTE

The Gorgas Memorial Institute of Tropical and Preventive Medicine is soliciting the aid of physicians and laymen in furthering the activities that form the basis of the memorial. The program consists of work in tropical research, and an educational campaign to develop cooperation between scientific medicine and the laity to the

end that personal health standards may be improved and preventable illness and premature death avoided. Some of the practical work done throughout the year was the study of the mosquito plague in and around Chicago, and a continuation of the tropical research that is being conducted in the Panama Canal Zone. The health educational campaign has consisted in the preparation of health articles by the governing committee of the Institute, which have been sent out to the newspapers of the United States and which work has had the cooperation of both the United Press and the Associated Press, as well as hundreds of editors of newspapers and periodicals that are obtaining their material independently. This educational campaign has been favorably received, and was thought to be of great assistance to laymen in the care of personal health. Aside from this newspaper publicity, there have been about one hundred radio talks broadcasted from the principal stations in the country from the Atlantic to the Pacific, and arrangements have been perfected to include Gorgas talks regularly in radio programs. The necessity of periodic health examinations is urged, and the public slowly is realizing that illness constitutes a definite economic waste which the American instinct of economy should conserve. The 1926 campaign contemplates the general promotion of a greater interest in personal health, and every citizen in the United States will be urged to set aside one day during the year, preferably his birthday, to go to his personal physician and have a health examination. Aside from this a national mosquito abatement campaign will be conducted in which the public will be urged to cooperate with health agencies in eradicating disease carrying and pestiferous mosquitoes. The Gorgas Institute, with executive offices at 1410 North Michigan Avenue, Chicago, is soliciting subscriptions from every source to aid in this constructive work and every physician is requested to contribute within his means.

PUBLIC HEALTH IN INDIANA

A REVIEW OF THE WORK FOR THE YEAR 1924-25

The annual report of the State Board of Health covers the period of the fiscal year for the state from October 1, 1924, to October 1, 1925, except in the matter of vital statistics, which are always compiled for the calendar year. For this reason the vital statistics shown in the annual report for 1925 are the vital statistics of the calendar year 1924.

The ultimate expression of the value of public health work is to be found in the trend of morbidity and mortality rates as applied to the whole population and as applied to particular diseases which are due to well known and well recognized causes. This is especially true of diseases and of conditions favoring disease that are within the

control of applied human knowledge and effort. Tuberculosis may be taken as a typical example of a communicable disease in which the essential cause, the manner and means of communication from one to another and the conditions that favor or inhibit the disease are well known. It may be assumed that the vital statistics of the state for the past ten year period 1915 to 1924 inclusive, are comparable both as to accuracy and completeness. The death rate from tuberculosis for the state in 1915 was 141.9 for each 100,000 of population. Each succeeding year shows a constant decrease in the rate until the rate for 1924 is 84 per 100,000 population—the lowest rate recorded in the history of vital statistics in the state. The total number of deaths from tuberculosis has decreased from 4,021 in 1915 to 2,520 in 1924. If the 1915 rate had prevailed in 1924, there would have been 1,680 more deaths from this disease than actually occurred. If the average value of a human life in Indiana, regardless of age, is \$2,000, then the Hoosier state can place \$3,360,000 to the credit side of the ledger for the year 1924, alone because of its forehandedness and thrift in the prevention of tuberculosis.

Typhoid fever is as well known and as well understood as tuberculosis. The typhoid death rate in 1915 was 14.6 per 100,000 of population. The 1924 rate was 7.3 or exactly one-half the 1915 rate. The number of deaths from typhoid decreased from 415 in 1915 to 214 in 1924. If the 1915 rate had prevailed in 1924, there would have been 211 more deaths, which at \$2,000 each would add \$422,000 to the credit side of the Hoosier ledger.

The question of federal aid to the states to stimulate road building, agriculture, education and other activities, has been widely discussed with widely different opinions as to the soundness of the policy involved. The Federal Shepard-Towner Act extending federal funds to the states when matched by state funds, for maternity and infancy hygiene, became operative in Indiana through the Child Hygiene Division of the State Board of Health in 1922. It is not necessary to go back of 1920 in a comparison of death rates from maternal causes, because prior to that year there was a mournful sameness in the rate for each succeeding year. While there was a cheering improvement in death rates from most communicable diseases and a noticeable downward trend in the general death rate from year to year, Indiana mothers continued to die with a regularity as to number and as to causes that was both noticeable and discouraging. The death rate in 1920 was 14.5, with a total of 485 deaths of mothers from puerperal causes. In 1922 this dropped to a rate of 13.4 with a total of 403 deaths. In 1923 the rate again dropped to 13, with a total of 392 deaths. In 1924 another drop was recorded to 11.8 with a total of 364 deaths. Had the rate of 1920 prevailed in 1924, it would

have been necessary to record the death of 80 more mothers. If the 1920 rate had continued to prevail throughout the five year period Indiana would today be poorer by at least four hundred mothers. If Indiana mothers are worth the full statutory value that has been placed upon human life by Indiana courts, namely, \$5,000, then there can be placed to the credit of applied knowledge and effort in the Hoosier ledger the tidy sum of \$2,000,000 in mothers saved to their children and to the state. The total expended in federal and state appropriations in the same period on the debit side of the ledger is \$162,000.

There may be vast room for argument and for difference of opinion as to the soundness or unsoundness of federal aid in maternity and infancy conservation, but there would seem to be little room for difference of opinion as to the wisdom and economy of saving mothers and babies.

Other instances similar to those mentioned might be added to show the saving in dollars and cents to the people of Indiana by reason of intelligent application of the essentials of good public health. It is sufficient to say that the year 1924 shows the lowest death rate from diphtheria in the history of vital statistics in the state—the death rate being 8.1 per 100,000 population as against an average of 15.3 for the preceding five year period. The year 1924 also shows the lowest death rate from scarlet fever and the lowest death rate in infants under one year of age of any year since vital statistics have been recorded. The death rate of infants under one year per 1,000 living births is interesting. The rate for the year 1924 is 65 as compared with a rate of 84 in 1917, and with an average rate of 71.5 for the preceding five-year period. If the rate of 1920, which was 81 per 1,000 had prevailed in 1924, there would have been 1,078 more deaths of infants under one year of age in the state of Indiana in 1924.

The discouraging facts, as shown in the vital statistics of the state, are to be found in the tremendous increase in deaths from external causes, from cancer and from the so-called degenerative diseases of middle life. There was a total of 534 deaths from automobile accidents in 1924 as against 362 in 1922. There were 2,930 deaths from cancer as compared with 2,092 in 1920, and 2,314 in 1915, an increase in the death rate from this disease from 81.9 in 1915 to 97.6 in 1924.

The function of the State Board of Health should be largely that of advising and assisting county, city and town health officials and departments in their work, and of correlating and supervising in a general way the public health work of the state. Because of the obsolete and the impractical system of public health administration in Indiana, with part-time and poorly paid local health officials, it is necessary for the state health department not only to take the initiative, but to undertake to actually carry out to the best of its

ability, much of the constructive health work in most communities of the state. Partial exceptions to this are to be found in the larger cities where the work of the health department is augmented by voluntary social welfare groups and organizations, and to a lesser extent in smaller cities and rural communities where the services of public health nurses are made available largely through voluntary organizations. The results accomplished within the past twenty-five years as shown by the decreasing prevalence of communicable disease, by a constantly lowering death rate, and by the practically universal desire for the best in health protection, are significant chiefly as showing the greater results possible with a system of public health administration that would guarantee to every community in the state a whole time, fully equipped, thoroughly trained and efficient health service. The great commonwealth of Indiana is still only playing at the serious business of protecting its physical and mental health.

WILLIAM F. KING, M.D.,

Secretary, Indiana State Board of Health.

THE DIAGNOSTIC TESTS FOR SYPHILIS

The Wassermann test for the diagnosis of syphilis has become a routine procedure wherever clinical medicine receives modern recognition. The original method has been simplified and modified to produce an extremely reliable hemolytic diagnosis of an important disease. However, there is undeniably a large element of empiric direction in all of the proposed reactions. Accordingly, a competent reviewer has not hesitated to remark that the strange vagaries of agglutination and Wassermann tests all show the inadequacy of our present knowledge, and how little we really know of intracellular chemistry. As various classic tests for abnormal components of the urine and various procedures for the quantitative analysis of blood, gastric contents and digestive secretions, spinal fluid, and other analyzable body components have given way to novel modifications of entirely new reactions, so we may expect the even less definite serodiagnostic tests to experience change with increasing knowledge. In the diagnosis for syphilis, the Kahn test, in particular, seems to be gaining a deserved popularity. It eliminates the use of such variable factors as guinea pig complement and sheep blood cells, and is in this respect less subject to error than the Wasserman test. The rapidity with which a complete test may be executed makes it particularly valuable in cases in which an early diagnosis is of immediate importance, as, for example, for blood transfusion or in the collection of convalescent scarlet fever serum. It is of interest, therefore, to learn that since October the laboratory of the Michigan Department of Health has ceased to run the Wassermann test on routine specimens for the diagnosis of syphilis, only the Kahn precipitation test being reported on. Ample

confirmatory evidence of the reliability of the latter has been secured through thousands of comparative tests. The Michigan commissioner of health states that there are several reasons for the change in procedure. They are both economic and scientific. He avers that the simplicity and accuracy of the Kahn precipitation test in the hands of a well trained personnel make it a more dependable test than the Wassermann test, as ordinarily run by diagnostic laboratories. It is quickly carried out, so that far more prompt service on blood specimens can be secured. The results of the Kahn tests are interpreted in the same way as the Wassermann, since the method of reporting is based on a comparison of more than 160,000 parallel tests in the Lansing laboratory, and by many thousand reports made by contemporary investigators. The innovation in Michigan will be followed with interest by all interested in diagnostic service.—*Jour. A. M. A.*, Nov. 28, 1925.

DO ATHLETES DIE YOUNG?

Frequently going to the physical limit cannot be done without risk of injury, but the notion that athletes die young from overstrain is a fallacy according to Daniel Chase, supervisor of physical education of the State Education Department who talked on this subject from radio station WGY one Friday night under the auspices of the New York state department of health.

Continuing Mr. Chase said, "The occasional death of a former star athlete in the prime of life is used frequently to point the lesson that all athletics are harmful and dangerous. The harm usually comes when the athlete in later life ceases completely to carry on any form of athletics, and the lack of use of the muscles developed through his athletic competition causes degeneration and trouble. However, scientific studies disprove the prevailing idea that athletes die young.

"Dr. Meylan of Columbia, in 1904, investigated the health of one hundred fifty-two oarsmen who rowed in the crews of Harvard from 1852 to 1892. The result of the study showed that one hundred twenty-two were still living. Of the thirty who died, six were killed in war. Only two died of heart disease and only one of consumption. Only two considered themselves in poor health, and these were fifty-seven and sixty-six years old respectively. Only two believed that rowing had injured their health. Ninety-four per cent. were free from any affection of heart, stomach or kidneys, even eleven years after they had left college. Fifty per cent. had never been sick in bed a week, and thirty-seven per cent. of the others had been sick only once. Eighty per cent. became successful business and professional men, and twenty of the others gained national and international reputation.

"Dr. Anderson of Yale, made a study of 807 Yale athletes who won their "Y" in their crew,

track, baseball or football, between 1855 and 1895. The result showed that only four had died of heart disease, two of these at the age of sixty-eight. The percentage of deaths among the athletes for this period was 7.2, while for the other students of the same period it was 12.9 per cent. In comparing these figures, however, remember that the one group is made up of men picked originally for their superior physical development. Dr. Anderson says in summary, 'Proof is conclusive that Yale athletes do not die young,' and 'Heart disease is not the cause of their death as you might suppose.'

"Perhaps as these and other authorities state, occasional prolonged and strenuous exercise does not harm the normal heart, still it should always be borne in mind that frequently going to the physical limit cannot be done without risk of injury.

"Overdoing of competitive athletics may mean something worse than minor injury to health. It may mean a perverted outlook on life and a complete failure to grow in wisdom and knowledge as well as in stature. The character and ideals of the coach is of vital importance, more so than his technical training and experience, or his ability to turn our winning teams. The temptation of striving to win at any cost must continually be fought. If the larger benefits which come from sports are kept continually in mind, if the boys and girls are in sound physical condition, if their training periods are of reasonable length, if the number of contests is limited, if the coaching is in the hands of trained people of high character, then the dangers of overdoing competitive athletics will be reduced to a minimum."

EDITORIAL NOTES

DEAR DOCTOR:

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We want THE JOURNAL to serve YOU.

Don't forget the session of the American Medical Association which will convene earlier than usual this year. It is to be held at Dallas, Texas. April 19-23, 1926.

WE hope that none of the county medical societies in Indiana will neglect the subject of periodic physical examinations. Not only should medical men know how to make the examinations

in accordance with the plan proposed by the A. M. A., but the public should be sold on the idea of having these examinations at regular intervals, preferably on every birthday.

THE Michigan State Medical Society is discussing the question of increasing the number of nurses with limited training who will be available for the less serious illnesses, and the recommendation has been made, through a committee, that it would be advantageous to adopt methods for enlarging the number of such nurses.

INDIANA physicians again are being solicited to purchase and use "*succus cineraria maritima*" for the treatment of cataract, and in advocating its use the manufacturers say, "Why not try the treatment and thus save money for your patient as well as avoid employing the services of a specialist." To which we would like to answer that the preparation is worthless for the purposes advertised, and its use would be pure quackery.

Hygeia says, "Don't give whiskey for a snakebite." Now isn't that a fine piece of advice for all of the chaps who fish, hunt, or play golf and some of whom find it necessary several times a day to treat snakebite? Not so long ago *Hygeia* condemned "rock and rye" for a cold, but we hardly thought that condemnation of popular remedies would go so far as to knock out whiskey for snakebite.

ONE of our exchanges reports that an Indiana concern has been sending three handkerchiefs by mail to doctors, with the request that one dollar be remitted in payment. It is strange that we should have been slighted, as we are not often missed by grab-bag enterprises. The best way to get around these forced sale propositions is to stuff the merchandise in a drawer and wait until an agent calls for it or postage is sent for its return.

MANY Indiana doctors have not paid membership dues in the Indiana State Medical Association for the year 1926. They were delinquent on and after February 1st, and now are not entitled to the benefits of the Association, one of the most important of which is the right of defense in malpractice suits. We hope that delinquents will pay up promptly, for it not only reflects upon them as delinquent in duty when they do not pay the dues on time, but such conduct may prove to be very expensive in a loss that could be prevented.

ONE of the prominent advertisers of THE JOURNAL writes the editor as follows:

"Your appreciated letter of December 10th has been received. May the New Year bring to you added satisfaction in your work, and as much else as you may wish.

"We are delighted to be represented in the Journal of

the Indiana State Medical Association. You are to be congratulated upon the progress of your Journal. It is one of the best in the state group, and is always read with interest here.

"The enclosed contract for 1926 confirms our belief in you and the Journal you so ably edit."

THE medical profession is indebted to Senator James E. Watson for his activity and influence in securing a reduction of the Harrison narcotic tax by the ways and means committee of the House of Representatives. It is hoped that his activity and influence may have some favorable result in a reduction of the income tax through permission granted to members of the medical profession to deduct expenses incurred in attending medical society meetings and in doing post-graduate work.

It is reported that one thousand doctors have moved from other states to Florida within the last six months. Perhaps some of them are doomed to be sadder but wiser men at the end of two or three years or even sooner. Florida during the last year reminds us of new gold fields that are stampeded by prospectors with the possibility of about one out of a thousand making a strike. We are not saying that Florida hasn't a wonderful climate and natural resources, but the state has been boomed beyond all reason, and it is only a question of time until the bubble will burst.

THE physician who keeps abreast of the times of necessity must read the medical journals, advertising and all. Many a new and valuable drug, instrument, or appliance extremely useful in the practice of medicine gets before the medical profession through advertising in medical journals. Not infrequently circulars, pamphlets or books, giving information concerning some advances, are announced in advertising only. The progressive physician is the one who scans the leading medical journals, which now are the state journals and *The Journal of the A. M. A.*, from cover to cover.

If there is anything that makes the average doctor peeved it is the attitude of an insurance company that refuses to pay for more than thirty days' professional services in a bad industrial case that in the hands of any attending physician requires attention for sixty to ninety days, and the excuse given by the insurance company for non-payment for services beyond the thirty-day limit is based upon failure of the attending physician to ask for an extension of time during which the industrial case is to receive attention. Such experiences are what make the average reputable physician loathe to accept industrial cases.

MANY women and young girls suffer from sneezing and coryza which they attribute to colds and which not a few physicians have diagnosed as

manifestations of a slumbering sinus trouble. In not a few of these cases the cause can be found in the inspiration of face powder into the nose with its local irritating effect upon the mucous membrane. Many of the face powders are highly irritant when coming in contact with the mucous membrane, and the powder puff is a very efficient way of getting the powder inside the nose. A cure of the sneezing or coryza depends upon whether there is a cessation in the use of the powder, or the adoption of some means whereby there is no chance of the powder getting into the nose.

ARE you reading *Hygeia* and if so do you not think that it is a wonderful journal of individual and community health? In reality it is the only journal now published, or ever published, that contains so much perfectly trustworthy knowledge concerning health matters that should be known by the lay public. It is published and sponsored by the American Medical Association, and it is the duty of every member of that organization to further the circulation of *Hygeia*. To that end, every doctor should keep a copy of *Hygeia* on the reception room table of his office, and he ought to encourage subscriptions to *Hygeia* by every public library and reading room, and by all lay persons with whom he comes in contact.

THERE is a movement on foot to require specialists to have a specified amount of special training, including didactic and clinical work, before being permitted to pose as specialists before the medical profession and public. This is a very good idea, for already there are too many "half baked" specialists musing up the practice of medicine. It is bad enough to have general practitioners trying to treat eye diseases, do x-ray work, remove appendices, and do a variety of work that should have the attention of a real, for sure specialist, without having such work mused up by the illy trained and poorly educated specialist who gets his name and a gaudy certificate after a few weeks of indifferent training at a so-called postgraduate school.

WHAT a pity that from the State Board of Health on down to municipal and county health boards politics cut some strange pranks. Why can't we have positions on health boards filled by medical men, controlled by efficiency and service and not by party politics, and not disturbed by the personal ambitions of those who want the jobs? We can not expect the best of any man when he is hampered by trouble making and office seeking politicians or others who are working for personal interests. The medical profession as a profession very properly should take some hand in the politics that places the science of medicine at a disadvantage through the ignorance and incompetency of medical officials appointed or elected to prominent offices.

WE commend to our readers the resolutions passed by the Michigan State Medical Society concerning the promotion and sale of *Hygeia*, and especially that portion of the resolution which reads as follows:

"Whereas, The difficulty that obstructs greater conservation of human lives and limits man's longevity is the lack of instruction and the absence of greater receipt of reliable scientific information by the people in regard to the laws of health and prevention of disease, and

"Whereas, It is the unquestioned duty of the profession to employ every honorable and dignified means to increase the dissemination of reliable scientific medical knowledge and instruction, and

"Whereas, An important and effective means is available in the publication, *Hygeia*, edited and distributed by our parent national body, the A. M. A.; therefore, be it

"Resolved, That we commend the officers of the A. M. A. in their labors to supply such a publication as *Hygeia* and approve the monetary investment that is being made for that purpose."

To read some of the pathetic letters from "down and out" reputable and ethical physicians, the facts of which have been verified, should be an inducement to well-to-do physicians to contribute to the Physicians' Home out of their reserve accumulations. Think of a highly respected doctor, ninety-five years of age, who practiced medicine for sixty-seven years, being in the poor house; and another old doctor with no relatives admitting that now he is fighting hard against the poor house and ultimately the potter's field. Sponsors of the home say that there are hundreds of such cases, well authenticated, throughout the United States, some more tragic than others, and all having the heart throbs of sincere sorrow. It is such who need to rest to the end of their days in "Tranquility"—the home that is being prepared for "down and out" physicians.

FEDERAL investigators report that out of two thousand children under school age in Gary, Indiana, over one-third were found to suffer from defective vision. This statistical data indicates the necessity of instituting measures to conserve the eyesight of children, but the percentage of school children in Gary who have defective eyesight should not be considered as applying to other communities where the foreign population is not so large, for it must be admitted that industrial centers like Gary have a very large population made up of foreigners who are ignorant and do not pay as much attention to any phase of health conservation as is given to the subject by the residents of other communities. Therefore, we should not be led astray by statistics that show an alarming state of affairs, except as those statistics apply to individual communities.

How many doctors read their insurance policies? We are reminded to ask this question in view of the fact that a few doctors carrying health and accident policies have thought that they were fully protected when, as a matter of fact, they were not, and they discovered the error when they attempted

to secure indemnity. We are forced to admit that in the majority of such instances the policies were in companies not very well known and generally conceded to furnish cheap insurance. We never yet have found anything that was cheap that did not in the end prove to be inordinately expensive, and the cheap health and accident insurance policy generally contains a "joker." Read your policies before paying for them, and remember that usually policies are so skillfully worded that it is hard to detect the "jokers." Refuse to take the policies if they do not meet your requirements in every respect.

WE received an invitation to be present at the Research Conference of the National Warm Air Heating and Ventilating Association, to be held at the University of Illinois in December. The invitation contained the statement that the question of the proper heating of the home as applied to health has been under consideration for several years and has been made the matter of scientific research in a research residence which the association built at Urbana, Illinois, several years ago. If the investigation of this subject has been divorced from commercialism it should end in much good, though we always are afraid that the findings will be biased as a direct result of the influence of certain manufacturing interests. It would be interesting to know whether all of the various well known types of heating and ventilating are represented and what part each has to play in the research work that is going on in the report that ultimately will be furnished.

BERNARD MACFADDEN, the physical culture faker, whose methods have been fully exposed by the American Medical Association, is attempting to exploit his physical culture activities through the medium of lectures and exhibitions before local civic clubs. It is reported that in some cases he and his tribe even have persuaded the school authorities in some communities to permit the use of public schools for this purpose. The American Medical Association, as pointed out in a letter from the executive office of our Association, has "showed up" Macfadden and his publications, one of the latter being *Physical Culture* which reeks with sex appeal, is a patent medicine paradise, and often contains long articles praising osteopathy, chiropractic and many other pseudo-medical cults. It should be the duty of every reputable medical man to attempt to prevent Macfadden and his gang from hoodwinking any of the school authorities or the officers of civic organizations in Indiana.

WE often wonder if some writers of medical papers who copy extensively from textbooks believe that all of the readers or hearers of the paper are dumb enough not to know that the contribution is a textbook paper. We are reminded of this matter by noting that a paper

sent in for publication in THE JOURNAL has in a very large measure been taken word for word from a textbook and without credit. We wish we could follow the rules of the A. M. A., which require that no paper shall be approved for publication unless it can be classed under one of the following heads: "First, such as may contain and establish positively new facts, modes of practice or principles of real value. Second, such as may contain the results of well devised original experimental researches. Third, such as present so complete a review of the facts on any particular subject as to enable the writer to deduce therefrom legitimate conclusions of importance."

AT the November conference of State Medical Society secretaries and editors, considerable discussion followed a paper on qualifications for membership in the county medical society. We are rather amused when we hear some enthusiast advise leniency in judging the qualifications of those who are to become members in our county medical societies, for it is that very attitude that has resulted in putting into some of our county medical societies doctors who are not only a discredit to the society but to the medical profession as well. We are unalterably opposed to the idea of taking men into our county medical societies to reform them, for you can not reform any man who starts on the wrong foot and continues on the wrong foot up to the time that he is approached to join a medical society. The censors of our county medical societies ought to analyze the qualifications of any doctor proposed for membership in our reputable medical societies before passing favorably upon the applications. Any man admitted to our medical societies ought to have established a reputation for right thinking and right living, and until he has established that reputation we should not give him serious consideration.

NEVER in the history of THE JOURNAL have we failed to publish a report of any meeting of any medical society if a report of such meeting reached us. However, every once in a while some doctor writes in saying that the secretary of his county medical society has advised him that the reason that reports of meetings of his medical society are not sent for publication is because such reports go into THE JOURNAL's waste basket. We usually refrain from any harsh answers, though we would like to say now and for the future that such statements are falsehoods. We not only publish all reports of society meetings in Indiana if the copy is submitted to us, but we solicit such reports in an endeavor to give our readers information as to what is going on in the medical societies of the state. We also urge county medical society secretaries and doctors generally, to send us news notes and comments suitable for publication with a view to making the columns of THE JOURNAL more interesting. As a matter of fact,

there are too many secretaries of medical societies who are lazy or indifferent, and they are looking constantly for an alibi when it comes to an accounting of their dereliction in office.

SEVERAL county medical society secretaries have suggested that on and after March 1st, which really would mean granting thirty days' grace, a delinquent list of county medical society doctors should be published in *THE JOURNAL*. The suggestion is a good one and may be carried out. There is nothing that will make a doctor pay up his dues and other indebtedness to his golf club as quickly and cheerfully than to post his name on the bulletin board of the club as being delinquent, but he gets as mad as a hornet if the county medical society secretary asks him for the payment of a very small amount to settle his delinquent account with the local medical society. If a doctor is having a struggle to make both ends meet, there would be some reason for being patient with him, but as a matter of fact it is that kind of a fellow who is rather sensitive about his credit and his dues are paid on time, whereas the doctor who has a good income and perhaps is comfortably well off in the bargain, is the one who not only thinks he can abuse his credit but proceeds to do so. We are inclined to believe that if a few of the latter type were disciplined it would be better for all concerned.

THE New York State Department of Health has started a campaign for the eradication of diphtheria. The public is informed that if a person with diphtheria is treated promptly enough with a large enough dose of antitoxin, recovery is almost certain. It also is pointed out that to prevent a disease is far better than to cure it, and now we have at hand the means for prevention of diphtheria in the substance known as toxin antitoxin. The commissioner of health of the State of New York, through newspaper articles and radio talks, advises the public that there is no question but that diphtheria can be practically wiped out of the state of New York if every young child can be immunized with toxin antitoxin. Up to the age of six months there is little likelihood of a baby having diphtheria, but at that age every child should be given toxin antitoxin. If this can be carried out during the next five years there will be no doubt as to the result. Diphtheria will be practically nonexistent in New York state. What has been attempted in New York state should be attempted in Indiana. Immunization can be brought about by three injections of toxin antitoxin given at weekly intervals. It causes at most only a slight soreness at the site of injection, and the younger the person the less the soreness. Any qualified physician can administer the treatment.

THE insurance companies certainly helped themselves to a good thing when they succeeded in get-

ting through the Indiana legislature a compensation law that requires every employer of labor within the state to either procure indemnity insurance or provide an indemnity bond covering accidents or injury to employees. Thus a dentist, doctor or business man of any kind who has three or more clerks in his office is required to protect those employees with an indemnity insurance policy, or if he assumes the risk himself he must furnish a bond that is filed with the insurance department of the state. Of course there isn't one chance in a thousand that any of these employees will be injured while pounding a typewriter, answering the telephone, or chewing gum while waiting for dictations, but the employer must carry an insurance policy for them anyway, and is compelled to do so no matter how slight the risk may be. Insurance companies undoubtedly were back of this legislation, and we wonder how long it will be until some enterprising manufacturers will get a law through the legislature that will compel us to furnish our office employees with chewing gum, face powder, and pink garters. Incidentally, while we are in this game of making somebody pay for somebody else, why not get a law which will compel employees to give a dollar's worth of work for a dollar in wages.

AN epidemic of smallpox or any other serious communicable disease, in any populous community, immediately brings forth a demand on the part of the public health officers to get busy and stamp out the disease. The Christian Scientists, osteopaths, chiropractors, anti-vaccinationists, and all the brood of opposers to scientific medicine slink into the background and not a peep is heard from them nor does the general public care to recognize them in any way. The fact of the matter is that whenever any great calamity threatens the lives and health of a community a very large proportion of that community desires to have the advice and the attention of educated and trained medical men and will have nothing to do with anyone else. This fact has been proved times without number. The great industrial corporations, like railroads, steamship lines, and manufacturers of every kind, each having a large number of employees, will not accept the services of members of the cults or medical pretenders of any sort in caring for industrial accidents and the health of employees when the expense of such care is to be borne by the employer. It is a matter of dollars and cents with such organizations and not a matter of sentiment, and they know that not only is the best medical and surgical service the cheapest but that there is only one class of men who can render such service and they belong to the regular medical profession which requires adequate education and training before being privileged to practice. These facts ought to have some weight with the average citizen when he thinks of employing a doctor, and it would not be a bad idea to keep the argument before him constantly.

THE Bureau of Publicity of the Indiana State Medical Association has been furnishing medical speakers for lay audiences, and quite naturally men who not only proved to be the best speakers but most willing to give their time and talents are the ones who are called upon most often. Without exception these men are highly ethical and prominent medical men in the state. Some of them, on invitation, have even delivered health talks over the radio. We haven't heard that in a single instance these speakers have indulged in personalities or self-exploitation. Therefore, we are surprised and chagrined to think that not one but several medical men of the hypercritical variety, and who themselves probably are not capable of nor willing to talk health problems to the public, are grumbling and finding fault concerning the publicity work on the part of the medical profession, and giving as the excuse for their complaints that those who are talking to the public are doing so because they want to advertise themselves. Perhaps we would be the first to criticize those who are exploiting themselves, and the Lord and everyone else knows that we have such men in the profession, but we do say, without fear of successful contradiction, that the men who have been talking before lay audiences under the direction of the Bureau of Publicity of our Indiana State Medical Association have not only been a credit to themselves and our profession and conducted themselves with a proper appreciation of ethics and propriety, but they have lived up to the best traditions of the medical profession.

WE commend to the county medical societies of Indiana, the minimum program for county medical societies in Michigan which is as follows:

Section 1.—SCIENTIFIC—

(a) Ten meetings are to be held during the year. Local speakers are to appear before three meetings with definite planned discussions.

(b) A program of physical examinations shall be instituted in which all physician members shall agree to have a complete physical examination themselves and each shall agree to secure at least five patients who will agree to have complete physical examinations.

Section 2.—SOCIAL AND INFORMAL ACTIVITIES—

Each Society is to have at least three dinner meetings. The speakers for these meetings shall be public speakers, educators, financiers, but not medical men. At least one picnic shall be held. At least one social evening, in co-operation with members of closely related organizations shall be arranged.

Section 3.—SCIENTIFIC TEAMS—

Each Society shall have a group of two or three members who will prepare a program and give it on request before at least three other Societies.

Section 4.—PUBLIC HEALTH INFORMATION AND EDUCATION—

Each Society shall plan to have at least one Public Health lecture group which shall give at least five lectures in cities and communities outside of their resident communities or cities. Adjoining counties are to be included. Each Society shall co-operate and assist other organizations so that the following public lectures may be held. (Co-operation shall be established with the Extension Department of the University of Michigan, and the Joint Committee on Public Health).

- 1 lecture for each high school.
- 1 lecture for each Parent-Teacher Association.
- 1 lecture for each luncheon club.
- 1 lecture for each woman's club.
- 1 lecture for each Association of Commerce.

Section 5.—PUBLICITY—

Each meeting, scientific or public, shall be reported to the local newspapers in such form that at least one important point of value can be read by the reader.

The secretary shall report each month to the State Medical Society the complete record of all activities and accomplishments.

WHEN we read the extravagant and oftentimes entirely false statements of the paid propagandists of the anti-saloon league and some other defenders of the Volstead Act, we are reminded of the notoriously false and misleading propaganda of the anti-vivisectionists and anti-vaccinationists. They are not content to discuss the subject in a manner that is free from prejudice, bias or willful misrepresentation. In the first place, we believe in temperance and everything that will promote it, but we think that a rational consideration of the benefits of the Volstead Act will show that five or six years under its influence has not brought about the reforms and benefits anticipated or promised. There are many very sincere and loyal advocates of real prohibition who feel that the Volstead Act in the main has failed, and that it is time to do something that will regulate the liquor traffic rather than attempt to prohibit. In this connection the publicly expressed opinion of the united churches of a prominent religious sect in this country to the effect that the Volstead Act has failed, is worthy of consideration from the very fact that the opinion comes from a class of people naturally favoring prohibition. The rapidly increasing consumption of alcoholic beverages among our young people, many of whom never knew the taste of alcoholic beverages prior to the Volstead Act, creates a feeling that there is something radically wrong in our efforts to force temperance upon the people. It is true that the saloon has been banished, but the bootlegger plies his trade, selling his poisonous concoctions to all who have the price, and there is much evidence to show that the sale and consumption of the vile stuff is greater than it was immediately after the enactment of the Volstead law. The time is ripe for looking the problem squarely in the face and deciding upon some measures that will prove effective in bringing about a greater degree of temperance than we have at present, and with less appearance of forcing prohibition with no probability of ever making the thing effective, no matter how much effort and money we spend in enforcement.

WE have been interested in the experiment now on trial in Texas and some other states whereby the regular medical profession as a profession is advertising in the daily press with the idea of protecting the public against ignorance in the sick room, and pointing out the difference between

trained and untrained medical men and the attention given by skilled medical men in comparison with the attention given by the quacks and medical pretenders. The publicity campaign is with the idea of advertising the medical profession as a whole, its accomplishments in the past, and its hopes for the future. Recently the advertisements have announced to the public that it is dangerous to patronize ignorant practitioners, and that the only known means of determining who are qualified is the Medical Practice Act of the state, and who has complied with the provisions of that act. Later on it is intended to discuss special subjects like the communicable diseases and their recognition and treatment, and other subjects the importance of which can be impressed upon the lay reader. The campaign is a very expensive one, as might be expected, and it is entirely questionable if the results will justify the expense. In fact, already the quacks and the medical pretenders are retaliating by publishing in the daily press advertising that is intended to offset anything that is printed under the name of the regular medical profession. It is well enough to say that the profession will not enter into any newspaper controversy with a quack, but the bare fact that the quack answers the arguments of the regular medical profession, whether the reasoning is sound or not, is sufficient to give him a recognition not deserved. However, if we are ever going to get anywhere in the matter of educating the public concerning the difference between competency and incompetency we must place the matter squarely before the people in an intelligent manner, and to do this will require a certain amount of publicity which may as well be in the nature of advertising in the lay press, with all of the dangers of having it partly nullified by public antagonism of the quacks and members of the pseudo-medical cults.

MUCH has been said about specialists treading on the toes of others by assuming to treat conditions that do not come within the province of a particular specialty. As a matter of fact the specialist and the general practitioner should co-operate, but of necessity there must be some overlapping, though each has enough to do if he works out his own problems. The general physician who goes over his cases thoroughly and avoids the superficial methods so commonly employed by some men who are afraid of doing something that they will not be paid for, will have enough to keep him busy, and the thoroughness of his work and the results secured will bring him prestige as well as financial reward. Such a practitioner will not tread upon the toes of the specialist, for he will realize his limitations and be satisfied to permit the better qualified to take care of the disorders that come within the province of the specialist. On the other hand the specialist, who is first a general physician and then a specialist, is expected by the patient to secure results, and

if the general physician neglects to do his part, the specialist is placed in an embarrassing position if no attention is paid to contributory conditions. The physician who attempts to treat everything and never relinquishes the patient nor calls for help until the patient becomes dissatisfied, generally speaking is the one that complains the loudest about having his toes stepped upon, for it is his patients that leave him and finding the desired relief they condemn him for not admitting lack of qualifications for giving appropriate attention to the conditions that generally are conceded to come within the realm of specialism. The more highly trained and the more experienced the general man is, the more he has to do, the less complaint he offers concerning specialism, and yet the more frequently he calls specialism to his aid. What he knows he knows well, and is able to apply, and he finds abundant opportunity for exercising his knowledge and skill. He does not presume to know much about the specialties, and he realizes that there are those who have been trained in the pure specialties and it is to them his patients must look for relief. He welcomes the co-operation that can be given, and he puts nothing in the way of success. On the other hand, the specialist appreciates and seeks the co-operation that such a man can give, and he fully realizes that the best results in many cases depend upon the combination of the two forces. The greatest difficulty encountered is the lack of co-operation and mutual helpfulness in solving the problems.

THE manager of a laboratory in one of the larger cities in the state who does a great deal of bacteriological and pathological work for medical men, advises us that his laboratory loses considerable money through non-payment of legitimate accounts contracted by patrons in the medical profession, and that the loss is not due to the inability on the part of the doctors to pay but neglect or refusal to do so. An instance is cited where a well-to-do and prominent physician was indebted to a considerable amount for laboratory work that had been done for him over a period of many months and the charges for which presumably had been paid to him by patients. Several statements during a period of two years brought no payment from the doctor, and finally when a letter was written saying that the laboratory actually needed money and would like to have a payment on account, the doctor replied that if his credit was not good he would take his work somewhere else, and he at once proceeded to place his threat into effect but without paying his long overdue account. We might add that THE JOURNAL has more trouble collecting from doctors than from anyone else, so we can appreciate the general condemnation of the members of the medical profession for slowness in the payment of obligations, though we are pleased to state that conditions are better than they were a few years ago, and that at the present time the number of doctors who are

deadbeats or slow pay are few in number. However, some of the worst offenders are men fairly prominent in the medical profession as well as in the communities where they live, and we sometimes think that if these men were posted in a credit rating bureau with their records given to all persons in business, it would have a salutary effect. When doctors without good reason are slow in the payment of their personal obligations, it is little wonder that their patients feel that they can adopt the same policy. Good credit is a desirable thing to have, and it can be established by prompt attention to the payment of obligations. Merchants and laborers of every kind need their money after it has been earned. If doctors expect their patients to pay promptly, an example should be set. Banks are the legitimate places where money may be secured for the payment of current bills, and it is better to borrow of a bank, whose very life depends upon loaning to those needing the money, than to ask merchants and others to extend credit. The doctor who keeps up his credit for the prompt payment of his personal obligations is held in greater respect even from a professional point of view than the one who is careless and indifferent to obligations.

DEATHS

DANIEL A. DEFOREST, M.D., of Boonville, died December 21, aged ninety-two years. Dr. deForest graduated from the Yale University School of Medicine, New Haven, Connecticut, in 1858.

W. B. BLACKSTONE, M.D., of Fort Wayne, died December 26, aged fifty-five years. Dr. Blackstone graduated from the Northwestern University Medical School, Chicago, 1884.

PAUL J. BARCUS, M.D., New Richmond, died December 27. Dr. Barcus graduated from the Medical College of Ohio, Cincinnati, in 1887. He was a Fellow of the American College of Surgeons.

J. C. ALEXANDER, M.D., Indianapolis, died December 3, 1925. Dr. Alexander was not in active practice at the time of his death. He was a graduate of the Medical College of Indiana, Indianapolis, in 1895.

EZRA PRALL, M.D., of Henryville, died January 2, aged fifty-one years. Dr. Prall was a member of the Montgomery County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association. He graduated from the Kentucky School of Medicine, Louisville, in 1898.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

DR. W. B. RICE and Miss Georgianna Barnes, both of Fort Wayne, were married January fifth.

DR. and MRS. ALBERT E. BULSON, JR., of Fort Wayne, are taking a midwinter vacation in Bermuda.

DR. W. E. PENNINGTON has purchased x-ray equipment and has equipped a complete x-ray laboratory at the new Christian Hospital, Indianapolis.

SINCE January 1, Dr. W. H. Foreman, of Indianapolis, has had offices at 700 Medical Arts Building. He is assisted by Dr. Arthur G. Funkhouser.

THE annual congress on Medical Education, Medical Licensure and Hospitals will be held February 15, 16, 17 and 18, in the Gold Room, of the Congress Hotel, Chicago.

THE Ninth Annual Meeting of the Indiana Academy of Ophthalmology and Otolaryngology was held at Evansville, January 20 and 21, with headquarters at the Hotel McCurdy.

THE Ripley County Medical Society held its regular monthly meeting at Milan, January sixth. They were entertained at the Miwogco Sanitarium, by Dr. A. C. Bauer, with a one o'clock luncheon.

THE January meeting of the Madison County Medical Society was held January 19, at the Grand Hotel, in Anderson. Dr. E. B. Mumford, of Indianapolis, discussed some of the newer problems in the treatment of fractures.

AN examination will be held by the American Board of Otolaryngology in Dallas, Texas, on Monday, April 19, 1926, and in San Francisco, California, on Tuesday, April 27, 1926. Application should be made to the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

DUPLICATE bronze tablets, honoring the memory of Dr. Everett E. Hodgkin, formerly president of the board of public health, through whose efforts the nurses' home and the administration building at the City Hospital, Indianapolis, were constructed, were placed in the corridors of both buildings, December 29.

The Rush County Medical Society held its first meeting of the year at Rushville, January 4. Dr. Henry Allburger, of Indianapolis, presented a paper on "The Art and Science of Medicine" and Mr. Thomas A. Hendricks gave a talk on "What the State Association Is Doing for the Individual Doctor."

THE Tippecanoe County Medical Society held a meeting at Lafayette, January 14. There was a clinic at St. Elizabeth's Hospital in the afternoon, a banquet at the Lafayette Club at six o'clock and an address, illustrated with lantern slides, on "Intestinal Obstruction" by Dr. William R. Cubbins, of Chicago.

DR. A. F. JAEGER was elected president of the Indianapolis Medical Society at the annual meeting for election of officers held January fifth. Other officers elected were Dr. Harry L. Foreman, first vice-president; Dr. L. M. Dunning, second vice-president, and Dr. Lyman R. Pearson (re-elected), secretary-treasurer.

THE Grant County Medical Society held its regular meeting at the Spencer Hotel, Marion, January 26. The program consisted of an address by the president, Dr. E. O. Daniels; papers by Drs. V. V. Cameron, R. W. Lavengood, M. J. Lewis, M. S. Davis, N. B. Powell; reports of several committees; and the payment of society dues.

THE U. S. Public Health Service has released strip film views, illustrating lesions of syphilis and of skin diseases simulating syphilis, prepared with the assistance of eminent syphilologists and dermatologists. The Surgeon General has planned for the use of this film by medical societies, medical schools and hospitals through the various state boards of health. A number of copies of each film are being made, and while they are not for sale, they will be released to the state boards of health for extended periods.—(*Jour. A. M. A.*, Jan. 16, 1926.)

THE tenth annual congress on Internal Medicine will be held at Detroit and Ann Arbor the week of February 22 to 27, 1926. The congress is devoted to amphitheater, bedside and clinical laboratory demonstrations as well as to symposia dealing with modern phases of internal medicine. Distinguished guests from abroad, Canada and the leading clinics of the United States will occupy prominent places on the program. Four days will be devoted to the work at Detroit, and on one day the society will be the guest of the University of Michigan at the newly opened University Hospital.

Physicians who are members in good standing of their local and national societies are invited

to attend. Hotel headquarters will be at the Book-Cadillac in Detroit. Information may be secured from the Secretary-General, Dr. Frank Smithies, 920 North Michigan Avenue, Chicago.

INFORMATION is desired concerning the whereabouts of Dr. Isidor Ritter, formerly of New York City. Dr. Ritter disappeared in 1907. He was last seen in Rochester, New York; he is about thirty-eight years of age, five feet nine inches tall, light complexion, with a tattoo mark on his arm and a light area, the size of a nickel, on the back of his head. Dr. Ritter has relatives in New York, Atlantic City and Philadelphia. Information should be forwarded to Dr. Henry Reiter, 211 East Tenth Street, New York, who requests that medical journals here and abroad publish a notice.—(*Journal A. M. A.*, Jan. 16, 1926.)

IN addition to the articles enumerated the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Arlington Chemical Company:

Acacia (Scap.) Pollen Extract-Arlco, Alfalfa Pollen Extract-Arlco, Ash Pollen Extract-Arlco, Box Elder Pollen Extract-Arlco, Burning Bush Pollen Extract-Arlco, California Walnut (Black) Pollen Extract-Arlco, Cocklebur Pollen Extract-Arlco, Cosmos Pollen Extract-Arlco, Fleabane (Common) Pollen Extract-Arlco, Goose Foot Pollen Extract-Arlco, Hemp Pollen Extract-Arlco, Indian Rice Pollen Extract-Arlco, Indian Wormwood Pollen Extract-Arlco, Live Oak Pollen Extract-Arlco, Marsh Elder Pollen Extract-Arlco, Meadow Fescue Pollen Extract-Arlco, Mugwort Pollen Extract-Arlco, Oat Grass Pollen Extract-Arlco, Olive Pollen Extract-Arlco, Pine Pollen Extract-Arlco, Plantain Pollen Extract-Arlco, Prairie Sage Pollen Extract-Arlco, Poplar Pollen Extract-Arlco, Privet Pollen Extract-Arlco, Red Fescue Pollen Extract-Arlco, Rye Grass Pollen Extract-Arlco, Slender Ragweed Pollen Extract-Arlco, Sweet Clover Pollen Extract-Arlco, Sweet Vernal Grass Pollen Extract-Arlco, Sycamore Pollen Extract-Arlco, Thistle Pollen Extract-Arlco, Velvet Grass Pollen Extract-Arlco, Western Cottonwood Pollen Extract-Arlco, Western Ragweed (Giant) Pollen Extract-Arlco, Winter Fat Pollen Extract-Arlco, Yellow Daisy Pollen Extract-Arlco.

Cutter Laboratory:

Special Pertussis Vaccine-Cutter.

Annual Salt Bush Pollen Extract-Cutter, Arizona Ash Pollen Extract-Cutter, Bermuda Grass Pollen Extract-Cutter, Black Walnut Pollen Extract-Cutter, Canary Grass Pollen

Extract-Cutter, Carless Weed Pollen Extract-Cutter, Coast Sagebrush Pollen Extract-Cutter, Cocklebur Pollen Extract-Cutter, Common Ragweed Pollen Extract-Cutter, Cottonwood Pollen Extract-Cutter, False Ragweed Pollen Extract-Cutter, Giant Ragweed Pollen Extract-Cutter, Johnson Grass Pollen Extract-Cutter, June Grass Pollen Extract-Cutter, Lamb's Quarters Pollen Extract-Cutter, Live Oak Pollen Extract-Cutter, Marsh Elder Pollen Extract-Cutter, Mugwort Pollen Extract-Cutter, Olive Pollen Extract-Cutter, Rabbit Bush Pollen Extract-Cutter, Orchard Grass Pollen Extract-Cutter, Plantain Pollen Extract-Cutter, Red Root Pigweed Pollen Extract-Cutter, Red Top Pollen Extract-Cutter, Russian Thistle Pollen Extract-Cutter, Rye Grass Pollen Extract-Cutter, Sagebrush Pollen Extract-Cutter, Shadscale Pollen Extract-Cutter, Sheep Sorrel Pollen Extract-Cutter, Timothy Pollen Extract-Cutter, Velvet Grass Pollen Extract-Cutter, Western Ragweed Pollen Extract-Cutter, White Oak Pollen Extract-Cutter, Wild Oat Pollen Extract-Cutter, Yellow Dock Pollen Extract-Cutter.

Eli Lilly & Co.:

Coco-Quinine.

Mallinckrodt Chemical Works:

Sulpharsphenamine-Mallinckrodt 0.1 Gm. Amp.
Sulpharsphenamine-Mallinckrodt 0.2 Gm. Amp.
Sulpharsphenamine-Mallinckrodt 0.3 Gm. Amp.
Sulpharsphenamine-Mallinckrodt 0.4 Gm. Amp.
Sulpharsphenamine-Mallinckrodt 0.5 Gm. Amp.
Sulpharsphenamine-Mallinckrodt 0.6 Gm. Amp.

H. K. Mulford Co.:

Insulin-Mulford 10 Units 10 Cc.
Insulin-Mulford 20 Units 10 Cc.
Insulin-Mulford 40 Units 10 Cc.
Insulin-Mulford 80 Units 10 Cc.

Parke, Davis & Co.:

Aster Pollen Protein Extract Diagnostic-P. D. & Co., Barnyard Grass Pollen Protein Extract Diagnostic-P. D. & Co., Bermuda Grass Pollen Protein Extract Diagnostic-P. D. & Co., Burweed Marsh Elder Pollen Protein Extract Diagnostic-P. D. & Co., Chestnut Pollen Protein Extract Diagnostic-P. D. & Co., Cocklebur Pollen Protein Extract Diagnostic-P. D. & Co., Common Ragweed Pollen Protein Extract Diagnostic-P. D. & Co., Corn Pollen Protein Extract Diagnostic-P. D. & Co., Cosmos Pollen Protein Extract Diagnostic-P. D. & Co., Crab Grass Pollen Protein Extract Diagnostic-P. D. & Co., Dahlia Pollen Protein Extract Diagnostic-P. D. & Co., Dandelion Pollen Protein Extract Diagnostic-P. D. & Co., Halberd-Leaved Orache Pollen Protein Extract Diagnostic-P. D. & Co., Giant Ragweed Pollen Protein Extract Diagnostic-P. D. & Co., Indian Hair

Tonic Pollen Protein Extract Diagnostic-P. D. & Co., Johnson Grass Pollen Protein Extract Diagnostic-P. D. & Co., June Grass Pollen Protein Extract Diagnostic-P. D. & Co., Maple Pollen Protein Extract Diagnostic-P. D. & Co., Marigold Pollen Protein Extract Diagnostic-P. D. & Co., Orchard Grass Pollen Protein Extract Diagnostic-P. D. & Co., Plantain Pollen Protein Extract Diagnostic-P. D. & Co., Prairie Sage Pollen Protein Extract Diagnostic-P. D. & Co., Rose Pollen Protein Extract Diagnostic-P. D. & Co., Rough Marsh Elder Pollen Protein Extract Diagnostic-P. D. & Co., Sage Brush Pollen Protein Extract Diagnostic-P. D. & Co., Western Ragweed Pollen Protein Extract Diagnostic-P. D. & Co., Western Waterhemp Pollen Protein Extract Diagnostic-P. D. & Co., Wheat Pollen Protein Extract Diagnostic-P. D. & Co., White Clover Pollen Protein Extract Diagnostic-P. D. & Co., White Goose Foot Pollen Protein Extract Diagnostic-P. D. & Co.; Willow Pollen Protein Extract Diagnostic-P. D. & Co., Wormwood Sage Pollen Protein Extract Diagnostic-P. D. & Co., Yarrow Pollen Protein Extract Diagnostic-P. D. & Co., Yellow Dock Pollen Protein Extract Diagnostic-P. D. & Co.

Protein Extracts Diagnostic-P. D. & Co., Group 28; Protein Extracts Diagnostic-P. D. & Co., Group 29; Protein Extracts Diagnostic-P. D. & Co., Group 30; Protein Extracts Diagnostic-P. D. & Co., Group 31.

Physicians' Diagnostic Laboratories:

Concentrated Culture Bacillus Acidophilus-P. D. L.

Swan-Myers Company:

Mixed Ragweed Concentrated Pollen Extract-Swan-Myers.

E. R. Squibb & Sons:

Scarlet Fever Streptococcus Antitoxin Concentrated.

Scarlet Fever Streptococcus Toxin for Dick Test-Squibb.

Scarlet Fever Streptococcus Toxin-Squibb.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION BUREAU OF PUBLICITY

December 16, 1925.

Meeting called to order at 4:30.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D., and Thomas A. Hendricks, Executive Secretary.

The minutes of the meeting held December 9 were read and approved.

The following bills were approved for payment:

George J. Mayer Co., stamps	\$ 1.25
W. K. Stewart Co., mdse.	1.65
Hume-Mansur Company, light bulbs	1.00

Total \$ 3.90

The article for release on "High School Basketball and Health" read and approved.

A special article prepared at the request of the *Indianapolis News* automobile editor upon "Health Hints to Motorists in Winter" was read, corrected and approved.

A short Christmas greeting for release Wednesday, December 23, read and approved.

Letter received from Dr. Charles N. Combs stating that Murray N. Hadley, of Indianapolis, had been appointed to succeed Dr. Doepfers, treasurer-elect of the State Association, on the Publicity Committee.

Speaker assigned to fill engagement before the Clinton County Medical Society, January 7, to give demonstration on Periodic Health Examination.

Request from Orange County Medical Society for the executive secretary to be present at the meeting of that county society January 5 approved.

Letter received from Richard M. Olin, M.D., Commissioner of Health, Department of Health, Lansing, Michigan, asking for information on Publicity Bureau work in Indiana. The secretary was instructed to answer Dr. Olin in detail concerning work and to send him a copy of the 1924 report of the Bureau made before the House of Delegates.

Similar request received from Paul A. White, M.D., secretary of the Scott County Medical Society, Davenport, Iowa. The secretary was instructed to give detailed information and help Dr. White in any way he was able.

Request received that Paul C. Neely, M.D., of Speed, Indiana, be placed on the mailing list to receive bulletins in order that they may be printed in the monthly paper published at Speed by the Louisville Cement Company. The secretary was instructed to place Dr. Neely's name on the mailing list.

There being no further business, the meeting was adjourned. The above minutes were approved in each separate part and as a whole December 23, 1925.

WILLIAM N. WISHARD, M.D., Chairman,
THOMAS A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

December 30, 1925.

Meeting called to order at 5:00 o'clock.

Present: Wm. N. Wishard, M.D.; Wm. A. Doepfers, M.D., and Thomas A. Hendricks.

Minutes of the meeting held December 16 read, corrected and approved.

The following bills were approved for payment:

The Bailey Office Supply.....	\$15.00
Dolbey & Van Ausdall, stencils.....	4.00
Kardex Rand Company.....	1.50
Total	\$20.50

The article, "Accomplishments in Medicine in 1925," read, corrected and approved for release.

Under the heading of "Echoes from Publicity Release on High School Basketball," the following letters were received and read by the Bureau:

Remington, Ind., December 26, 1925.

Indiana State Medical Association,
Indianapolis.

To Publicity Bureau:

Gentlemen:—Please send me a copy, or tell me the price of a copy, of your recent bulletin, "High School Basketball and Health." I am coaching basketball at Hanging Grove Consolidated Schools, McCordsburg.

I would also appreciate information concerning bulletins that would be useful in the teaching of Hygiene in the grammar grades.

Thanking you in advance for any help or information you can give me, I remain

Yours respectfully,

WILLIAM J. CASEY.

Anderson, Indiana, December 21, 1925.

Mr. Thomas A. Hendricks,
1004 Hume-Mansur Bldg.,
Indianapolis, Indiana.

Dear Mr. Hendricks:

We have your letter and the copy of the article which will be released today to the 120 papers receiving your weekly bulletins.

You may be sure that we feel that you are doing everything that should be done to clear any misunderstanding that may have been caused by the resolution passed at Marion last fall. As we stated before, the I. H. S. A. A. has no desire to raise any objections or to call for any explanations at all. As we see the situation, we are trying to do the same thing.

We appreciate your kind words about our work in the I. H. S. A. A. through the years.

Very truly yours,

ARTHUR L. TRESTER.

The executive secretary made a report upon the talk before the Mid-Winter Meeting of the Council by Mr. Harlie Garver, principal of the Union City High School, chairman of the committee on research for the legislative body of the Indiana High School Athletic Association.

The executive secretary instructed to take up letters from Wm. F. King, M.D., and Miss Isabel Glover, Director of Public Health Nursing with the Chairman of the Council, Wm. R. Davidson, M.D., and ask his permission for the Bureau to consider these letters. These letters should have come before the Council at its mid-winter session, but were not received by that body due to lack of time for consideration.

A letter was read from the Oregon State Medical Association upon the problem of annual physical examinations.

A letter from the Commissioner of Health in Michigan, R. M. Olin, M.D., and from the New Mexico Division of Vocational Education commenting upon the work of the Bureau of Publicity read before the Bureau.

Suggestion of Dr. Albert E. Bulson, editor of THE JOURNAL, concerning publicity releases read before the Bureau.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole January 6, 1926.

WILLIAM N. WISHARD, M.D., Chairman,
THOMAS A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

January 7, 1926.

Meeting called to order at 5:00 o'clock.

Present: William N. Wishard, M.D.; Samuel E. Earp, M.D.; Murray N. Hadley, M.D.; Thomas A. Hendricks, executive secretary.

The minutes of the meeting held January 16 were read, corrected and approved.

The following bills were approved for payment:

American Linen Supply Co.....	\$ 1.60
Central Press Clipping Service.....	7.62
Hume-Mansur Company	2.00
The Western Union Telegraph Co.....	.48
L. S. McWhorter, repairing desk.....	1.00
Total	\$12.70

The article, "Indiana High School Athletic Association and the Indiana State Medical Association to Cooperate," was read, corrected and approved for release January 11.

Check for \$4.76 received from Dr. Virgil H. Moon, refund for expenses incurred by Dr. Moon in making trip to Connersville to speak before the Connersville Rotary Club of that city.

Letter received from the secretary of the Knox County Medical Society asking for a speaker to give a demonstration upon how to give a periodic health examination before the Knox County Medical Society Tuesday, January 12. Speaker named to fill the engagement.

Letter received from D. L. McAuliffe, M.D., asking for a speaker for the Tri-County Medical Society meeting to be held at North Vernon, January 27. Speaker selected by the Bureau to fill date.

Letter received from E. C. Denny, M.D., Councilor for the Sixth District, concerning the availability of speakers to demonstrate method of making periodic health examinations. Secretary instructed to write Dr. Denny that Bureau would be glad to supply demonstrators and speakers upon this subject any time he calls for them.

Letter from William R. Davidson, M.D., Chairman of the Council, received in regard to periodic health examinations and suggesting further publicity articles upon the relation of high school athletics to health.

A committee was appointed by the Bureau to make a special study into the questions regarding periodic health examinations laid down by letters from the State Board of Health and from the Oregon State Medical Society.

The secretary was instructed to make a copy of the list of lecturers so far compiled by the Bureau for each member of the Bureau.

An article in the December number of the *American Medical Association Bulletin* upon the "Training of Undergraduate Medical Students for Public Service" by Charles P. Emerson, M.D., was brought to the notice of the Bureau with special reference to the letter of O. H. Richer, M.D., Secretary of the Kosciusko County Medical Society in 1925.

There being no further business the meeting adjourned.

The above minutes were approved in each separate part and as a whole January 13, 1926.

WILLIAM N. WISHARD, M.D., Chairman.
THOMAS A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

January 13, 1926.

Meeting called to order at 5:00 o'clock.

Present: William N. Wishard, M.D.; Samuel E. Earp, M.D.; Murray N. Hadley, M.D.; Thomas A. Hendricks, executive secretary.

The minutes for the meeting held Wednesday, December 7, read, corrected and approved.

The newspaper release on "Eye Strain" read, corrected and approved.

Report received upon the meeting before the Clinton County Medical Society at Frankfort, January 7.

Speaker assigned for the Tri-County Medical meeting January 27 at North Vernon, Indiana.

Newspaper releases from Wisconsin and West Virginia noted by the Bureau.

A letter from the American Medical Association concerning Bernarr McFadden's proposed lecture campaign read by the Bureau.

The secretary was authorized to purchase a book on "Conferences, Committees, Conventions" from Harper Brothers.

Letter from the secretary of the Fort Wayne Medical Society read by the Bureau and the secretary was instructed to answer it.

Invitation received to attend the annual meeting on Medical Education, Licensure and Hospitals. As the president of the Association for 1925 was on the program, the Bureau thought it would not be necessary to send any other representative.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole January 20, 1926.

WILLIAM N. WISHARD, M.D., Chairman,
THOMAS A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

January 20, 1926.

Meeting called to order at 5:00 o'clock.

Present: William N. Wishard, M. D.; Samuel E. Earp, M.D.; Murray N. Hadley, M.D.; Thomas A. Hendricks, executive secretary.

The minutes for the meeting held Wednesday, January 13 read, corrected and approved.

The newspaper release on "The Nation's Health" read and approved.

The following bills were approved for payment:

The Kautz Stationery Co.	\$.25
Indiana Bell Telephone Co.	12.53
W. K. Stewart Co.	1.65
Simmons Ink Company, Inc.	5.25

Total \$19.68

The special committee of the Bureau presented a letter to the director of the Indiana Department of Public Health Nursing for the Bureau's approval. This letter was prepared in answer to a letter received from the director of the Indiana Department of Public Health Nursing. Letter was approved as presented.

Letter read from the secretary of the Miami County Medical Society in regard to certain questions arising as to the management of county hospitals, and the secretary was instructed to answer these questions.

A letter from the health officer of Princeton, Indiana, asking for folders was read before the Publicity Bureau. The secretary reported that he had taken the letter up direct with the secretary of the State Board of Health who said that he would send available folders to the health officer at Princeton.

Committee appointed by the Bureau to meet with the program committee of the Indianapolis Medical Society and suggest that one entire meeting be devoted to the subject of the annual periodic health examination.

Clipping read from the Auburn, Indiana Dispatch reporting that a paper on diphtheria released by the Bureau was presented before the Desoto Parent-Teachers' Association.

Literature distributed by the Division of Child Hygiene of the Indiana State Board of Health upon periodic health examinations reviewed by the Bureau.

Letters from the secretary of the Wisconsin State Medical Society read by the Bureau. Paragraph especially noted that the Council of the Wisconsin State Society advised all component societies that at least for the present it does not seem advisable to insert paid advertisements "setting forth the merits of scientific medicine as opposed to quackery."

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole, January 27, 1926.

WM. N. WISHARD, Chairman,
THOMAS A. HENDRICKS, Secretary.

GREENE COUNTY MEDICAL SOCIETY

January 15, 1926.

The first meeting of the Greene County Medical Society for 1926 was held in the office of Dr. Mason, of Bloomfield, January 14, at 8:30 o'clock.

Papers were presented by Dr. Porter, of Linton, on "Disease Prevention," and by Dr. Johnson, of Worthington, on "Neurasthenia." Papers were discussed by all members present.

Eleven of the seventeen members were present.

The next meeting will be held at Worthington, February 11.

C. D. MENDENHALL, M.D., Secretary.

TIPPECANOE COUNTY MEDICAL SOCIETY

January 15, 1926.

The Tippecanoe County Medical Society met in regular session at the Lafayette Club, Lafayette, January 15, with about fifty in attendance.

The afternoon clinic at St. Elizabeth's Hospital was attended by the same number. This clinic was arranged by A. C. Arnett, M.D., and was conducted by William R. Cubbins, M.D., of Chicago. Several interesting cases were presented and differential diagnosis made by Dr. Cubbins. Many valuable helps were demonstrated in making the diagnoses.

Doctor Cubbins gave a very interesting address, illustrated by slides, his subject being "Intestinal Obstruction, Acute."

The application of W. T. Wilkins, Jr., M.D., was presented for membership.

The next meeting will be held February 11, which will be a union meeting of this society with the dentists of this county. A clinic will be held at St. Elizabeth's Hospital in the afternoon and an address will be presented in the evening following a banquet.

J. C. BURKLE, M.D., Secretary.

RUSH COUNTY MEDICAL SOCIETY

January 9, 1926.

The Rush County Medical Society held its first meeting of the new year the evening of January 4, meeting in the dining-room of the new I. O. O. F. building in Rushville.

The meeting was well attended and interesting talks were given by Henry Allburger, M.D., Indianapolis, on "The Art and Science of Medicine," and by Thomas A. Hendricks, secretary of the State Association, on "What the State Association Is Doing for the Individual Doctor."

This society has just closed a very successful year under the presidency of Dr. Frank H. Green. We have been complimented by having as our guest-speakers the following Indianapolis men at various meetings in 1925: Drs. Edgar Kiser, Louis Segar, W. H. Foreman, Walter Pennington, Robert Moore, J. H. Warvel, C. D. Humes, C. H. McCaskey, H. H. VanOsdol, E. D. Cofield, D.D.S., and Professor Will Scott.

We have twenty-three practicing physicians in this county and *every one* is an active member, the dues for the entire membership for 1926 were paid in and forwarded to the State Secretary before December 22, 1925.

Death claimed two of our members last year, Drs. W. C. Smith and Frank H. Hackleman, both of whom always took an active interest in the society.

New officers for 1926 are: President, Dr. D. D. Van Osdol; vice-president, Dr. C. P. Smullen; secretary, Dr. J. M. Lee (re-elected).

J. M. LEE, M.D., Secretary.

The Rush County Medical Society has lived up to its name—"rush." There are twenty-three practicing physicians in Rush county and all twenty-three of them are paid-up members of the society, their dues having been paid and turned into the State Association December 22, 1925. Thus Rush county leads the field for 1926. John M. Lee, M.D., of Rushville, is secretary of the Rush County Medical Society and the officers of the State Association wish to thank him for his efficient, hurry-up methods.

THOS. A. HENDRICKS, Secretary,
Ind. State Med. Assoc.

ABSTRACTS

THE ULTRAVIOLET RAY AS A PROPHYLACTIC AGAINST RADIODERMATITIS

An attempt was made by George M. MacKee and George C. Andrews, New York (*Journal A. M. A.*, Nov. 28, 1925), to ascertain whether or not the ultraviolet ray is of any real value as a prophylactic against

radiodermatitis. Routine practical technic was employed, and the visual results were recorded. The conditions used for observation were: disseminated tinea capitis; acne vulgaris; senile skin with numerous keratoses and epithelioma, and also severe pruritus vulvae; leprosy; prickle-cell epithelioma and numerous seborrheic keratoses scattered over the face, and a small basal-cell epithelioma in each cheek. The results obtained show that actinotherapy is of some value in the treatment of chronic ulcers and telangiectasia caused by Roentgen rays or radium. Vigorous actinotherapy, resulting in acute reactions, at or near the time of roentgenization, may enhance the result of the latter. Tanning of the skin by actinotherapy does not materially increase toleration for roentgen rays or radium. Preliminary, generalized actinotherapy, even when continued for a long time, does not appear materially to decrease "radio-sensitiveness." It is possible to administer several or many times the standard erythema dose of roentgen rays to normal human skin without effecting more than a mild visible reaction. Ignorance of this fact may account for the erroneous assumption that actinotherapy is a prophylactic against Roentgen-ray and radium injuries. It is the authors' opinion that the ultraviolet ray, regardless of how employed, is of no practical value as a prophylactic against acute or chronic radiodermatitis. Furthermore, it is their opinion that a combination of the ultraviolet ray and the roentgen ray is more likely to be followed by sequelæ such as telangiectasia than when the Roentgen ray alone is employed.

CONVALESCENT SERUM IN THE TREATMENT OF PREPARALYTIC CASES OF POLIOMYELITIS

The results of the intramuscular administration of convalescent serum in the treatment of preparalytic cases of poliomyelitis are given by E. B. Shaw, H. E. Thelander and E. C. Fleischner, San Francisco (*Journal A. M. A.*, Nov. 14, 1925), who have treated five such cases. Summarizing, it may be stated that this method of treatment is at least theoretically a means whereby passive immunity may be achieved in a manner similar to that observed in the development of active immunity; namely, through the blood. For practical purposes it is the most logical method of administration. In all the cases but one, only one injection of serum was given, the dose varying from 40 to 92 c.c. In one case two injections were given, 50 and 70 c.c., respectively. The time of injection varied from five to twenty-two and one-half hours after the onset of the disease. Results were noted within a few hours, and in from twelve to fifteen hours all symptoms had virtually disappeared. The evidence indicates that preparalytic cases of poliomyelitis, even when presumably of the malignant or fulminating type, can be cured by intramuscular injections of fresh convalescent serum, if it is administered in adequately large doses at a sufficiently early period of the disease.

PROSTATITIS OF NONVENEREAL ORIGIN

Theodore Baker, Pittsburgh (*Journal A. M. A.*, Nov. 21, 1925), asserts that prostatitis of nonvenereal origin is much more common than is generally known. It represents between 15 and 20 percent of all cases of this disease. Its recognition is important: (1) from the sociological and economic standpoint of the patient; (2) in its relation to prostatism, and (3) in regard to its etiology. Many cases are undoubtedly due to distant foci of infection, or as sequelæ to the acute infectious diseases. Because of the obscure etiology of many cases, further study of this phase of the subject should be stimulated. Relapses are characteristic of the disease, these cases being more resistant to treatment than are those due to the gonococcus. Therefore, successful treatment depends on the finding and the removal of the underlying cause, if possible.

THE PROBLEM OF MALIGNANCY

Reviewing the causes of death in malignant disease, A. E. Barclay, Manchester, England (*Journal A. M. A.*, Nov. 28, 1925), says there is one factor concerned of which he has no proof but of whose existence and operation he is convinced. Some devitalizing process is at work and is usually attributed to the effects of undiscovered secondary deposits; but, in many cases, Barclay feels certain that it is largely the manifestation of an underlying malignant disease which unfailingly results in the gradual weakening of the patient, with cachexia and loss of energy and strength, and which ends inevitably in death from exhaustion. Provided the patient lives long enough, this process is seen in varying degrees of intensity, but is always subject to the intervention of death from one of the intercurrent or "accidental" causes—invasion of the vital organs or sepsis. It is seldom, if ever, seen in rodent ulcer, but its presence is often suggested in those forms of malignant disease of slow growth in which metastases are not attacking vital organs, and it gives the impression that not only are the ordinary causes of death in these diseases (extension and sepsis) accidental, but many of these growths are only an incident or accident in an underlying malignant disease. Barclay terms this hypothetic and entirely unknown quantity, this essential underlying malignant process, \times . He believes it will eventually be found in the blood, and that it may disappear after originating the growth and also that it may vary widely in intensity quite apart from the type of growth it evokes. This \times occurs in every case of true malignant growth, and yet, how can one explain the fact that certain cases are cured by surgery or by radiations, while others persist and spread, either directly or by metastases, in spite of all one can do? Barclay explains this by assuming that certain growths are radiosensitive. The cause, the \times that originated the growth, has disappeared, and if the growth is completely eliminated by operation or by radiations or by a combination of the two, an actual cure is effected. In the radiosensitive type, complete success may be hoped for if one can locate and eradicate the primary focus and its metastases, only if this underlying factor has disappeared; but if \times is still at work, even in a very mild form, sooner or later, recurrences, even if they are of radiosensitive type, will come where they cannot be detected, and death follows. In the radio-insensitive type of tumor, one can do nothing but watch the progress of the growth and its metastases. When \times is not at work, these tumors pursue their course for a year or more, with comparatively little, if any, lowering of the patient's vitality, till nerves are involved, when pain and loss of sleep undermine the patient's strength. The end in such cases is often pathetic, and it is a merciful release when, at last, some vital organ is put out of action. In those cases which are due to the persistence of the true malignant cause, \times , the picture is one of increasing debility, of the type of pernicious anemia. Barclay is convinced that it is useless to look for the cause of malignant disease in the growth itself, and that the exciting cause will eventually be found elsewhere, either in the blood or carried by the blood, and that it will probably be found in some minute biochemical change which affects the reaction of the blood on certain types of cell, those cells being particularly susceptible that have suffered from some mechanical or inflammatory source of irritation, or which in the natural course are undergoing degenerative changes at the end of their life of functional activity.

TEETH AND EYE RELATIONS

The orientation of foci in teeth by other than dental means, Will Walter, Evanston, Ill. (*Journal A. M. A.*, Nov. 28, 1925), says, has occupied him more than three years. Knowing that the attacks may come from any tooth area, that the infecter is a streptococcus, that the film diagnosis is but one means of orienting it, that the bacteria or their toxic products are coming by the blood stream (though symptoms may appear reflexly), and that

the bacteria will grow and be destructive when they find favorable soil, or that the toxins will destroy when biochemical conditions favor, we have the problem of defense made evident. In the presence of an eye symptom or a manifest lesion, what, if any, signs are there, apart from those open to observation, that might point the way? A few years ago, Dr. Julius Toren called attention to a blood cell, which he called a specific type of lymphocyte demonstrable by a special type of stainability, which was associated with "teeth" infections—the chronic foci. This cell was differentiated by Ehrlich in his original classification. All that Toren assumed was its association with these infections. Walter sought to ascertain whether he could diagnose "teeth" foci by the presence of these cells. He found them in the beginning, and continued to find them in more than 98 percent of all bloods examined. Therefore, if they are pathognomonic, then teeth infection exists in some form in practically all mouths. It is noteworthy that in cases giving negative blood findings, the mouths have appeared entirely free from infection by all tests. It is also noteworthy and confirmatory of the theory that probably not more than 2 percent of jaws are free from streptococcus invasion of some sort. Dr. Toren's findings agree with Walter's, who has come to regard 1.5 per cent of these cells as within the normal, but says that any percentage over that should be reduced by procedures directed toward the eradication of suspected infection and continued until the percentage is within normal. Walter has found these cells in a surprisingly high percentage and in an unusual number of adolescents; and this finding, coming at the time of eruption of the third molars, is perhaps significant in view of the assertion by some that the delayed and impacted third molar is always infected. In about one-half of the cases, the ratios were changed by the elimination of foci in the way they should, to be in accord with this theory; in the others, it was not improved by dental surgery. Other variations from normal were found in these cases: first, low white blood counts (relative leukopenia), and second, quite generally, a relative lymphocytosis; *i. e.*, a high proportion of lymphocytes with a lower ratio of what have been thought to be the phagocytes of the blood, the neutrophils. There is, then, some evidence of an association between these infections and the blood response; in other words, a possible evidence of "teeth" infection in the whole blood picture. This, coupled with dental findings, should be a distinct aid to treatment, the object then being to establish a normal ratio by eliminating the areas supposed to be back of these specific cells and cell ratios, and not to give up until we do. Clinical findings, other than the cytologic, which are of added significance and value are: a relatively low blood pressure (hypotension), a low normal pulse and basal metabolism; subnormal temperature, and a low percentage of blood calcium which is perhaps an index of the percentage of other minerals in the blood. Walter gives a long list of eye conditions that he has found to be associated with "teeth" infection and details the management of these cases. He says that, unfortunately, from the standpoint of the eyes, the patients come only after the damage has been done.

IS ARTERIOSCLEROSIS AN HEREDITARY CONSTITUTIONAL DISEASE?

M. A. Mortenson, Battle Creek, Michigan (*Journal A. M. A.*, Nov. 28, 1925), believes that arteriosclerosis or cardiovascular renal disease is definitely hereditary, as is amply proved by careful study of family histories. Also by way of heredity an abnormal protein metabolism is transmitted, which is manifested by an increased uric acid content in the blood, and no doubt occurring long before any evidence of hypertension or renal disease can be detected. This increased uric acid in the blood suggests an inherited inability properly to metabolize protein, which may be endocrine in origin, or due to abnormal function of liver cells. The best and most rational

prophylactic measure as well as remedy is a basic diet, which necessitates a reasonably low protein intake. These statements are based on a study of 300 patients with arteriosclerosis, 200 healthy women, 200 patients chosen because of blood uric acid being below 3 mg., and 200 with blood uric acid above 4 mg. In the series of 300 cases of arteriosclerosis, 67.5 percent gave a definite history of arteriosclerosis; 8 percent a history of other well recognized hereditary diseases, namely, obesity, migraine, gout and bronchial asthma; the remaining 24.5 percent were divided between those giving a definite negative history and those having no definite knowledge of causes of death of their ancestors. The study of these 900 cases from the standpoint of heredity and blood chemistry shows conclusively that heredity is a very positive factor in arteriosclerosis and obesity. The incidence of inheritance is suggestive that a dyscrasia affecting protein metabolism is transmitted from one generation to the other.

CLINICAL AND EXPERIMENTAL RENAL DEFICIENCY

The experimental and clinical studies made by Frederick M. Allen, Rudolph Scharf and Harry Lundin, Morristown, New Jersey (*Journal A. M. A.*, Nov. 28, 1925), seem to place diabetes and kidney disease on much the same basis. The pathology of both is composed of a primary and a secondary factor. The primary factor is infection or intoxication, producing the initial lesions. The secondary factor consists in a functional overstrain of the damaged organ. The hydropic degeneration of islands of Langerhans is explainable on this ground and no other. Likewise the degenerative changes in the renal epithelium, which have been mysterious in cause and character, can probably in large measure receive the same functional explanation. Vascular disease or other local peculiarities may make the conditions less clear-cut in the kidneys than in the pancreatic islands. One difference must be recognized in the fact that functional rest of the pancreatic islands clears up glycosuria, while functional rest of the kidneys does not usually clear up albumin and casts. On the other hand, it is also known that albumin and casts are not trustworthy signs of the progressiveness of a case. With allowance for certain inevitable consequences of existing organic and vascular damage, the recognition of the class of secondary anatomic lesions due to functional overstrain should represent a valuable advance in the study of diseases of the kidneys. The clinical application is also important; namely, that for the most part hypertension and nephritis are not inherently progressive but are permanently controllable by adequate sparing of function.

THE DIETETIC FACTOR IN THE ETIOLOGY OF CHRONIC NEPHRITIS.

Two facts stand out prominently in the experimental work that has been done by L. H. Newburgh, Phil L. Marsh, Sarah Clarkson and A. C. Curtis, Ann Arbor, Michigan (*Journal A. M. A.*, Nov. 28, 1925). In the first place, diets containing excesses of protein produce urinary abnormalities in the omnivorous rat. In the second place, the rate at which evident abnormalities develop is dependent on the amount of protein fed and the length of time the diets are used. These results are believed to justify the statement that protein above certain limits is injurious to the kidneys of omnivorous as well as herbivorous animals. Since protein is absorbed from the intestine as its amino-acids, it was thought possible that information could be obtained by their injection into normal animals. The authors have injected intravenously into normal rabbits and puppies twelve of the amino-acids that result from the digestion of protein. Of these, no evidence of injury was obtained from glycine, alanine, phenylalanine, glutamic acid, leucine and arginine. Of the remaining six, aspartic acid was injurious to the kidneys of rabbits, but not to those of dogs, whereas

lysine, histidine, cystine, tyrosine and tryptophan gave unequivocal evidence of renal damage as the result of their injection into the circulation of both rabbits and dogs. In the cases of the last three, in particular, not only were marked urinary abnormalities obtained, but also the microscopic examinations of kidneys showed extreme parenchymatous injury. It is quite evident that excess of protein is a contributory factor in the etiology of chronic nephritis. For example, focal infection alone might not seriously damage the kidney. Excess of protein alone might not seriously damage the kidney. Focal infection and excessive ingestion of protein in the same subject are a combination of circumstances that commonly result in chronic nephritis.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

BORO-CHLORETONE.—A dusting powder composed of chloretone (New and Nonofficial Remedies, 1925, p. 91), 1 part; boric acid, 1 part; purified talc, 2 parts. Parke, Davis & Co., Detroit.

POWDERED WHOLE LACTIC ACID MILK-MERRELL-SOULE.—A modified milk preparation prepared from whole milk soured by the action of a culture of *Bacillus bulgaricus*. Each 100 Gm. contains approximately butter fat, 28 Gm.; protein, 26 Gm.; lactose, 33 Gm.; free lactic acid, 4 Gm.; ash, 6 Gm.; moisture, 3 Gm. When suitably mixed with water, powdered whole lactic acid milk-Merrell-Soule is said to be useful in the feeding of infants when a soured milk is indicated. Merrell-Soule Co., Syracuse, New York.—(*Jour. A. M. A.*, Dec. 5, 1925, p. 1811).

OVARIAN SUBSTANCE DESICCATED-P. D. & Co.—The entire fresh ovary (including the corpora lutea) of the hog and cow, dried in vacuo and powdered. For a discussion of the actions and uses, see Ovary, New and Nonofficial Remedies, 1925, p. 251. The product is also marketed in the form of five grain tablets. Parke, Davis & Co., Detroit.

OVARIAN RESIDUE DESICCATED-P. D. & Co.—The residue from the fresh ovary of the hog or cow after the removal of the corpora lutea, dried and powdered. Ovarian residue is used for the same conditions as those in which the entire ovarian substance is used. The product is also marketed in the form of capsules and tablets containing five grains. Parke, Davis & Co., Detroit.

INSULIN-MULFORD, 10 UNITS, 10 CC.—Each cc. contains ten units of insulin-Mulford (*Jour. A. M. A.*, June 20, 1925, p. 1917). H. K. Mulford Co., Philadelphia.

INSULIN-MULFORD, 20 UNITS, 10 CC.—Each cc. contains twenty units of insulin-Mulford (*Jour. A. M. A.*, June 20, 1925, p. 1917). H. K. Mulford Co., Philadelphia.

INSULIN-MULFORD, 40 UNITS, 10 CC.—Each cc. contains forty units of insulin-Mulford (*Jour. A. M. A.*, June 20, 1925, p. 1917). H. K. Mulford Co., Philadelphia.

INSULIN-MULFORD, 80 UNITS, 10 CC.—Each cc. contains eighty units of insulin-Mulford (*Jour. A. M. A.*, June 20, 1925, p. 1917). H. K. Mulford Co., Philadelphia.

AMPULES DEXTROSE 50%, 20 CC.—Each ampule contains 20 cc. of a 50 percent solution of dextrose U. S. P. Swan-Myers Co., Indianapolis.—(*Jour. A. M. A.*, Dec. 12, 1925, p. 1891).

PROPAGANDA FOR REFORM

EXAMINATION OF BRANDS OF CINCHOPHEN.—Cinchophen was introduced in the United States under the proprietary name "Atophan" by Schering & Glatz. At one time "Atophan" was included in New and Nonofficial Remedies. It was omitted in 1921 because unwarranted therapeutic claims were made for it and for other reasons. As a result of the war, cinchophen was manufactured in

the United States and at that time the A. M. A. Chemical Laboratory examined the market supply and found this satisfactory. Now the Laboratory reports the results of a re-examination. The Laboratory found that the cinchophen now marketed is still purer than that examined before and that all brands complied essentially with the standards of the new U. S. Pharmacopeia. It is concluded that all the products reported on (cinchophen-Abbott, cinchophen-B. P. C., cinchophen-Calco, cinchophen-M. C. W., cinchophen-Morgenstern and Atophan) are equally good for therapeutic purposes, and one is no better than another. The report of the Laboratory brings out the exorbitant price that the public and the profession have to pay for proprietorship in medicine. Under its nonproprietary name, cinchophen can be purchased for from fifty cents to one dollar per ounce; but "Atophan" costs from \$2.50 to \$2.75 for the same amount.—(*Jour. A. M. A.*, Dec. 5, 1925, p. 1828).

MORE MISBRANDED NOSTRUMS.—The following products have been the subject of prosecution by the authorities charged with the enforcement of the Federal Food and Drugs Act: Gary's Vegetable Ointment (The Sloan & Spencer Medicine Co., Birmingham, Ala.), consisting mainly of kerosene, alcohol, turpentine, camphor and menthol. Sayman's Wonder Herbs (T. M. Sayman Products Co., St. Louis, Mo.), consisting essentially of a mixture of baking soda, powdered ginger, gentian root, rhubarb, licorice, cascara sagrada, buchu, senna, mandrake and buckthorn. Chappellear's Bronchini (Wm. M. Chappellear & Sons Co., Zanesville, O.), consisting of ammonium chlorid, extracts of plant drugs, flavoring material including anise and sassafras oil, sugar, alcohol and water. S-K Remedy (S-K Remedy Co., Oakland, Oregon), composed essentially of vegetable drugs, including aloes and a small quantity of a mydriatic alkaloid, alcohol and water.—(*Jour. A. M. A.*, Dec. 12, 1925, p. 1907).

INCITAMIN NOT ACCEPTABLE FOR N. N. R.—In the information submitted to the Council on Pharmacy and Chemistry by Lehn & Fink, Inc., it is stated that Incitamin is a "standardized preparation of equine saliva, freed of coagulable substances"; that "each cubic centimeter contains 12 units of Ptyalin"; that it is preserved with 1 percent of chinisol. It was stated to be indicated in the treatment of indolent ulcers. Entirely different statements as to the composition were made on the trade packages and advertising. Here it was stated: "Incitamin is a mixture containing saliva (equine), serum (also equine), and pancreatic extract. * * * It is preserved by the addition of one-half of one percent of phenol." The Council found Incitamin unacceptable for New and Nonofficial Remedies because the statements of composition are contradictory; no data are given as to the amount of equine serum and pancreatic extract present; no data of any kind are given that the ingredients (whatever they are) have any action (except perhaps the phenol or chinisol); and so far as the evidence goes, it is an absurd and unscientific mixture. When the Council's statement was sent to Lehn & Fink, Inc., the firm replied that Incitamin formerly contained "saliva, equine serum and pancreatic extract," but that the formula had been changed to a "standardized preparation of equine saliva."—(*Jour. A. M. A.*, Dec. 12, 1925, p. 1907).

NEPHRITIN.—The present claims for Nephritin appear to be substantially the same as those advanced in 1907 when the Council on Pharmacy and Chemistry in its report on "Reed and Carrick's Methods" declared this preparation along with others inadmissible to New and Nonofficial Remedies.—(*Jour. A. M. A.*, Dec. 12, 1925, p. 1909).

GOITER PROPHYLAXIS.—Warnings against the promiscuous use of iodine in the prophylaxis of goiter are being sounded. Kimball urges that in all cases of iodine treatment, doses should be considered in terms of milligrams. The maximum dosage for an adult, provided there are no contraindications, is 10 mg. daily for not

longer than one month during which time the patient should be under very close observation. Kimball believes that there is no danger in the routine prophylaxis of goiter as it is carried out through the schools, namely, the administration of 10 mg. of iodine weekly. The evaluation of the use of iodine in hyperthyroidism belongs in a separate category. During the last few years its use has gained a new vogue. However, as now used, iodine has not been shown to be sufficient to suppress the disease permanently.—(*Jour. A. M. A.*, Dec. 19, 1925, p. 1970).

VITALAIT NOT ACCEPTABLE FOR N. N. R.—"Vitalait" is the uninforming name under which the Vitalait Laboratory of Newton Centre, Massachusetts, markets a culture of *B. acidophilus*. In the advertising sent to physicians, the generally discarded autointoxication theories of Metchnikoff are used as a warrant for recommending its use in a host of conditions. The advertising sent to a layman is plainly addressed to the public. The Council on Pharmacy and Chemistry found Vitalait (Vitalait Laboratory, Newton Centre, Mass.), unacceptable for New and Nonofficial Remedies because it is marketed under a noninforming name; because the claims made for it are unwarranted and misleading; and because it is exploited to the public in a way that may lead, not only to its use for imaginary ills, but also for conditions in which a correct diagnosis and rational medical treatment are all important.—(*Jour. A. M. A.*, Dec. 19, 1925, p. 1985).

COD LIVER OIL SUBSTITUTE.—If an infant has rickets and an idiosyncrasy against cod liver oil, actinotherapy in the form of sun baths or ultraviolet ray exposure should be employed. Cod liver oil extract and irradiated foods have not yet been developed to a sufficient extent to be commercially obtainable in reliable form.—(*Jour. A. M. A.*, Dec. 19, 1925, p. 1986).

BOOK REVIEWS

PRACTICE OF GYNECOLOGY. By Henry Jellett, M.D. (Dublin University). F.R.C.P.I. Consulting obstetrician to the Department of Public Health of New Zealand; Ex-Master Rotunda Hospital, Dublin, etc. Fifth edition with 417 illustrations (many in color) and 15 colored plates. Philadelphia. Lea and Febiger, 1925. Price \$8.50.

This edition represents a careful and extensive revision of one of the popular text books of gynecology. "Gas Inflation of the Peritoneal Cavity and of the Fallopian Tubes." "Ovarian Transplantation" and the "Manchester Treatment" of uterine prolapse are among the new sections. Sampson's work on "Implantation adenomata of the Pelvis" is carefully presented. The author is quite right in disagreeing with Sampson's radical treatment for these endometrial transplants—he draws attention to the fact that in the past we have successfully treated unrecognized cases in the most conservative manner possible and remarks "the fact that we did not recognize that we were dealing with implantation cysts would not have modified their future course." The new chapter on "Sterility" presents the recent knowledge on this important subject. Dr. Jellett's book remains a highly satisfactory and very practical presentation of the subject of gynecology.

MODERN SURGERY, General and Operative, by J. Chalmers DaCosta, M.D., L.L.D., F.A.C.S. Samuel D. Gross, Professor of Surgery, Jefferson Medical College, Philadelphia. Ninth edition, revised and reset. Octavo of 1,527 pages with 1,200 illustrations, some in colors. Philadelphia and London. W. B. Saunders Company, 1925. Cloth, \$10.00 net.

We welcome the appearance of the ninth edition of the "Old Reliable," one volume, surgery—Modern Surgery by DaCosta. This book maintains its position as one of the leading American text books of surgery.

(Continued on Adv. Page xx)

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BOOK REVIEWS

(Continued from Page 92)

We can quite agree with the author in his statement that: "Surgical bacteriology at the present time is studied in special treatises written by specialists. Asepsis and antisepsis should be sought for in volumes devoted to these subjects or in a large text book of surgery in which ample space could be assigned to such important topics. Bandaging is relegated to works in minor surgery." The reviewer would suggest that syphilis should likewise be studied in "special treatises" and the thirty pages devoted to this subject could be omitted without detracting from value of the book. We almost insist that the elaborate discussion of the technique of bronchoscopy belongs in a volume devoted to this subject. The book is dedicated to Chevalier Jackson and he has also written the section dealing with bronchoscopy, etc.—the pages devoted to pictures of foreign bodies removed by Dr. Jackson, from the bronchi and esophagus, would find more appropriate space in *Hygeia*. DaCosta could save much valuable space by eliminating many of the obsolete references to the literature. However, this edition represents a distinct advance over the previous ones.

1924 COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION, Rochester, Minnesota. Octavo of 1,331 pages, 254 illustrations. Philadelphia and London. W. B. Saunders Company, 1925. Cloth, \$13.00 net.

This annual publication from the Mayo Clinic has become a medical classic. Its appearance is awaited with interest by both general practitioners and specialists. "The present volume is a complete reference record of all papers for the year 1924 from the Mayo Clinic and the Mayo Foundation, every such paper being published therein complete, abridged, abstracted, or by title. Such

articles as do not seem to be of interest to general physicians or general surgeons, but to be of technical or other limited interest only to specialists in the various pre-clinical and limited clinical fields, are included in brief abstract or by reference only." Probably the most interesting series of papers in this volume are those dealing with disturbances of the stomach and duodenum—the article by Easternman on "Duodenal Ulcer Simulating the Gastric Crises of Tabes," the one by Balfour on "The Case Against Gastro-Enterostomy" and that by Jean Verbrugge on "Gastrojejunocolic Fistulas" deserve particular attention. The important subject of stricture of the bile ducts is considered by Judd in two articles. Judd also presents an interesting study on "Renal Calculus" which appeared originally in the *Texas State Medical Journal*. "Rowntrees' Studies in Diabetes Insipidus" and Boothby's articles on the use of iodine in goiter are valuable contributions. This volume is in keeping with the high character of its predecessors.

THE CRIPPLED HAND AND ARM. By Carl Beck, M.D. Philadelphia and London. J. B. Lippincott Company, 1925.

The author states that it is his aim "to deal with the deformed and crippled hand, and some deformities of the arm which cripple the hand." In his monograph of 243 pages he has accomplished his aim in a highly creditable manner. After chapters on the anatomy and physiology of the hand Beck presents the subject of congenital deformities and this is one of the best sections in the book—the treatment of the various deformities is shown by numerous illustrations. In the chapter entitled "Hand Crippled by Injuries" the subject of infections is briefly considered and the reviewer feels that it would have been better to entirely omit this inadequate consideration. The author deserves great credit for the various plastic procedures which are shown by numerous illustrations.

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ORIGINAL ARTICLES

ACUTE RHEUMATIC FEVER*

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CINCINNATI, OHIO

Many of us still are struggling to remove ourselves from the haze of uncertainty which surrounds the classification of joint diseases and allied conditions. No entirely satisfactory classification can be given until the pathogenesis is more firmly established. The increased facilities for studying joint conditions from the x-ray, bacteriologic and metabolic standpoints have injected new terms into the nomenclature and thereby increased the difficulties and confusion in the elucidation of this group of diseases. It is necessary, however, to have some working basis for study, and the beginning of my remarks will deal with this problem alone.

Taking etiology as a basis of classification, it is fair to assume that a vast majority of cases of arthritis are due to infection originating within the body. There is a smaller group of cases, traumatic in origin, and another miscellaneous group, whose etiology is fairly definite but which differ one from another. Into this latter class of cases we may place gout, certain arthropathies, as in tabes dorsalis, the joint changes in arteriosclerosis, arthritic serum reactions, and those cases complicating scurvy, hemophilia and polycythemia of whose causation we know little. We may then summarize the above groups of cases as follows: First, a large group which will contain known infections producing joint diseases, such as gonococcus, streptococcus, colon bacillus infection, scarlet fever, pneumonia, tuberculosis, syphilis, septicopyemia and perhaps also rheumatic fever; second, other forms of arthritis due to causes more or less known as traumatic, gouty, serologic, neuropathic, hematologic, and, last, a large and formidable group with which the arthropedist gives battle under the terms of arthritis deformans, rheumatoid arthritis, osteoarthritis, chronic villous arthritis, etc. These latter conditions may be different in their various manifestations but often develop one into another, and may be once

hypertrophic, and another time atrophic, and again may frequently be associated with inflammatory conditions of muscular or fascial structures such as the myalgias, certain tendon disease, bursitis, Heberden's nodes, or neuritic and peri-neuritic conditions as sciatica or brachial neuritis. Notwithstanding the chronicity of these conditions there are frequently acute onsets or exacerbations which occasionally confuse the picture, but the general course is chronic. Then, sooner or later, there develops deformity of the joints and by virtue of this feature the general term of arthritis deformans is used by some to include this entire large group. Now again if we assume, that infections are responsible for the vast majority of joint conditions, acute and chronic, it might be argued that the term infectious arthritis should be used in its broadest scope to include a much larger group, but this would only serve to increase the confusion and difficulty in differentiating the various types of these cases. It is only in the smaller groups mentioned above, however, such as gonorrheal arthritis, where the term infectious arthritis can and should be used. Closely related to infectious arthritis and probably to be included, is a disease still of unknown origin, whose arthritic manifestations are a most important feature. I refer to acute rheumatic fever. This term is preferable to the term rheumatic polyarthritis or acute articular rheumatism since it may include other manifestations of the disease when the arthritic features are quite minor and insignificant.

The main body of this paper deals with acute rheumatic fever. Some of the symptoms may only be casually hinted at in the discussion of certain phases, which Osler designated by the term "rheumatic chain," which included the polyarthritis, chorea, tonsillitis, the rheumatic skin, cerebral, and heart manifestations. These various links of the chain are so definitely inter-related that a discussion of one can hardly be disassociated from the other. The definite causative agent of this group of conditions has not been found, though repeated claims have been made to this effect from time to time. It is generally believed to be an organism which must survive in the tonsils, whether this location be the sole portal of entry or not. It seems likely that the pericardium and

*Presented before the Section on Medicine of the Indiana State Medical Association at the Marion session, September, 1925.

endocardium, and probably other structures, may also harbor the organism somewhat analogous to the various habitats of the spirochete in syphilitic infections, latent or active. With the methods thus far employed, the joints themselves, in rheumatic fever, have been found sterile. In view of this fact the rapid swelling of the joints and their quick subsidence, especially under treatment, may be due to the toxins of the disease. Some have assumed that the joint symptoms are anaphylactic phenomena comparable to the serum reactions in joints. Chorea, which often follows the joint manifestations in children, differs in its response to salicylate therapy, and in this may again be compared to certain manifestations in syphilis which are refractory to treatment. That there is a definite relationship of chorea to rheumatic fever, however, in spite of this difference of response to salicylates, was made more certain by the researches of Thalheimer and Roth, who found the Aschoff bodies in the heart of fatal diseases of chorea as in rheumatic fever. Uncomplicated fatal cases of acute rheumatic fever are comparatively rare. Riesman asserts the mortality to be from 3.5 to 6.3 per 100,000, and this low mortality may be partially responsible for our lack of concern about this disease as constituting a real health problem.

The complications of rheumatic fever are, however, the great menace of the disease, and preventive medicine, which is now more than ever grappling with the problem of prophylaxis of heart disease, must focus its attention upon this group of rheumatic manifestations. In doing so it immediately encounters the interesting problem of focal infection. The relationship of the tonsils to rheumatic fever was surmised long before the present era of the exaggerated relationship of focal infections to so many ills of mankind. The frequent occurrence of a tonsillitis prior to a rheumatic attack, and the lack of recurrence often subsequent to tonsillectomy, point to a definite role played by the tonsils in this disease, but there are also primary attacks as well as recurrences after a tonsillectomy, and we are forced to believe that other sources of infection play an etiological role. It is far from proven that infected teeth have any definite relationship to this disease except and alone that the contiguous diseased mucous membranes serve as points of lowered resistance to bacterial invasion, and also serve to depress the general health. It is generally believed also that such factors as weather and exposure to cold, play a considerable role, but here also these conditions in themselves probably produce lowered resistance to any infection. That cold exposures are not very important factors is suggested also by the fact that the morbidity from this disease during the World War was very small indeed, and in this country the least number of cases occur during the winter months. Among other etiological factors we may

mention an occasional family predisposition. Age also seems to play a predisposing role, and the occurrence of the disease usually takes place between the ages of five and fifteen in children, and in adults usually before middle age. In considering the relationship of the age of the patient to rheumatic fever it is also most interesting to note the peculiarities of the disease as it occurs in children, as strikingly different from the manifestations in adult life. In the latter the picture is largely that of an acute migrating polyarthritis with fever, responding to treatment by the salicylates.

The characteristic painful, swollen, tender joints developing rapidly within forty-eight hours, with subsidence often in a few days, to appear in other joints and possibly to return in the primary locality again, is a most familiar picture. In milder cases there may be only tenderness in the affected joints, and if left uncared for, many cases recover spontaneously. Depending upon the severity of the infection the duration of the attacks may vary from a few days to several months. In the present day routine treatment with salicylates, which definitely shorten the attacks, it is difficult to determine the normal duration. Three weeks is often said to be an average length to these attacks, though many cases do not present themselves for treatment until many weeks have passed, and this is notably true in the class of cases which arrive at the Cincinnati General Hospital.

The fever range in rheumatic fever is usually between 101° and 103° F., though milder cases occur, and occasionally there is hyperpyrexia. There is much sweating and pallor, and a polymorphonuclear leucocytosis. In sixty typical cases occurring in the General Hospital in the past eighteen months, there was but one case in which the white count was below 10,000, and the average count was 14,000. In spite of treatment the disease not infrequently becomes protracted, one or more joints may remain swollen and stiff, and serous fluid accumulation within the joints may take place. Suppuration is, however, rare. Heart, skin and nervous complications, even chorea, are not infrequent in adults, though definitely less frequent than in children.

Rheumatic fever in children presents a more varied picture than in adults, often less acute in its onset and more insidious in character, it is quite often fraught with serious consequences and accompanied less by arthritic than by visceral manifestations—notably cardiac, nervous and skin complications. After a preliminary tonsillitis, possibly ever so mild, certain more or less painful symptoms may occur in the joints themselves or indefinitely in the extremities, the notoriously deceptive “growing pains” of the laity. These symptoms are followed by visceral manifestations, which insinuate themselves into the clinical picture almost without recognition, and possibly out

of all proportion to the primary attack. Chorea may precede but usually follows these early manifestations and may be a determining factor to a fatal outcome, but after all, the most vital features are the cardiac complications. It has been stated that in rheumatic fever occurring in a subject under ten years of age it is rare indeed for the heart to be spared in the first attack. A more conservative view is that a second attack almost certainly condemns the individual to an impaired heart. In adolescents and adults fortunately many more are spared the cardiac complications, but none are definitely safe, and we must not alone treat the rheumatic infection vigorously to prevent the cardiac disasters, but must continually be on the alert to detect the onset of a carditis, whether the endo, peri or myocardium or all three of these structures be affected. During an attack of rheumatic fever the presence or persistence of precordial distress, a rapid pulse and possibly only a slight fever after the subsidence of an arthritis is strong presumptive evidence of a cardiac complication. Often a sudden elevation of temperature alone is a signal of danger, and if in addition a murmur is discovered, we must assume the beginning of an organic lesion even if subsequent observation otherwise indicates that the murmur may have been due temporarily to weakened myocardium or dilated valve rings. It is not so common in my experience to have observed the very beginning of a valvular disease following upon arthritis, but I have in mind such a case where with a temperature range fairly continuous around 102° F. for ten days and followed by a gradually falling temperature to normal ten days later, a very faint systolic murmur at the beginning developed into a marked affair by the end of the attack. More often the endocarditis would seem to be masked for some weeks or months following the primary attack. However, many instances of myocardial and peri-cardial disturbances arise during or just subsequent to an arthritic manifestation. The precordial distress with dyspnoea or tachypnoea furnish presumptive evidence of cardiac disease, especially if accompanied by a muffling of the first heart sound. In these cases the myocardium also is rarely spared, usually accompanied by a disturbance of cardiac rhythm. Homer Swift states that in his observations with instruments of precision he has found in twenty to thirty percent of rheumatic fever cases a disturbance of the conduction time, permanent or transitory. (Later observations showed 80-90%). Our main guide heretofore in the detection of cardiac complications has been auscultation, and with me it has been rather infrequent in adults to determine the very beginning of a carditis rheumatica. Most often, as I have mentioned before, these cardiac phenomena have developed definitely months after a rheumatic attack without medical

observation of any kind. When the patient presents himself again the cardiac condition is full blown.

In considering the frequency with which cardiac complications follow rheumatic fever, and other data in this connection, it may be of interest to review sixty typical cases which occurred at the Cincinnati General Hospital during the past eighteen months. There were present in those cases:

	Cases
Acute endocarditis (mitral valve).....	5
Indefinite functional systolic bruits.....	6
Chronic endocarditis.....	23
Mitral insufficiency.....	21
Mitral stenosis (occurring with mitral insufficiency).....	3
Aortic insufficiency.....	20
Pericarditis.....	3
Myocarditis.....	4
Cardiac decompensation.....	2

In addition there were also present:

Chorea.....	in 1 case
Pleurisy with effusion.....	in 1 case
Bronchopneumonia.....	in 1 case
Tuberculosis.....	in 1 case
Stomach symptoms (epigastric distress).....	
.....	in 3 cases not due to medication

Previous Attacks—33 percent of the cases had one previous attack.

Rheumatic Fever Is Prone to Recur—25 percent had more than one previous attack; less than 50 percent of the cases came to the hospital in their first attack.

Tonsils and Teeth—Approximately 50 percent of cases had previous attacks of tonsillitis.

Possible Sources of Focal Infection—10 percent definitely had no previous attacks of tonsillitis though tonsils were present; 10 percent had previous tonsillectomies; 10 percent had both infected teeth and tonsils; 20 percent had infected teeth without apparent tonsil infection; 3 percent had sinus infections; 3 percent had pharyngitis; 3 percent had no apparent focal infection.

Joints involved:

Ankles.....	in 30 cases
Shoulders.....	in 21 cases
Elbows.....	in 10 cases
Knees.....	in 44 cases
Wrists.....	in 11 cases
Hips.....	in 14 cases
Fingers.....	in 3 cases
Feet.....	in 10 cases
Hands.....	in 10 cases
Vertebrae.....	in 5 cases

Sternoclavicular joint, 1 case.

Average leucocyte count, 14,000; lowest count, 8,400; highest, 20,400.

Month of Occurrence—January, approximately 10 percent; February, 10 percent; March, 13 percent; April, 13 percent; May, 13 percent; June,

7 percent; July, 11 percent; August, 3 percent; September, 3 percent; October, 3 percent; November, 3 percent; December, 11 percent.

The average length of residence in the hospital was eighteen days. This is not to be taken to indicate the duration of the attack, as some have remained longer for possible removal of focal infection, while others, improved, have refused further treatment for a complete cure.

Race—White, 41 cases; black, 19 cases.

This corresponds closely to the average admission of the races to the medical services.

Sex—Slightly over 50 percent were females, although the relative number of female admissions is much smaller.

During the first two decades of life the ratio of female to male was 2 to 1.

Age of cases:

Up to 10 years	3 cases
10-20 years	15 cases
20-30 years	20 cases
30-40 years	13 cases
40-50 years	1 case
50-60 years	6 cases
Over 60 years	2 cases

From the foregoing comments upon cases of rheumatic fever, and general discussion of the disease in its clinical features I again repeat that it is obvious that cardiac complications are the sad and important consequences of this disease, and the prophylaxis of rheumatic heart disease is intimately bound up with the prevention and prompt subsidence and cure of rheumatic fever. How far this is possible is a moot question. The removal of infected tonsils is probably a considerable help, but far from certain or infallible. It is devoutly to be wished for that the problem of focal infection may soon be placed upon a secure foundation, and not be left to the fancy and imagination of those who find in focal infection the cause of most of human ills. In the general therapeutic management of rheumatic fever, the following methods are suggested as indisputable:

1. A prompt confinement to bed.
2. Salicylate therapy.
3. Careful percussion and auscultation of the heart at frequent intervals.
4. Long confinement to bed after subsidence of the condition.
5. Regulate exercise during convalescence.
6. Guard against overstrain.

We have then practically one medical therapeutic agent in the salicylates and preferably among these, sodium salicylate. It is our most valuable weapon in this disease, but how often it is misused. Improper dosage, usually too small, too irregularly administered, and too early discontinued, are faults only too prevalent. Salicylate therapy in acute rheumatic fever is, in my opinion, specific. The rapid disappearance of pain

and swelling of the joints, and the subsidence of temperature under this medication, is one of the most satisfactory therapeutic results. The treatment, however, must continue for many days after the apparent cessation of the attack, else recurrence takes place, and it is probable that the longer the duration of the attack the more likely complications follow. If salicylates are specific, and if the manifestations of the disease are largely due to toxins, as is generally supposed, we might justly draw an analogy between this disease and diphtheria, and as in diphtheria give the largest possible dosage of the salicylates in the shortest possible time. Homer Swift recommends 1 to 1½ grams sodium salicylate by mouth hourly until pain is relieved or toxicity occurs, usually requiring from 6 to 12 grams in the first twenty-four hours; the following day ½ to ¾ of this dose, and a gradual diminution in the dose, but not a discontinuance of this medication until symptoms have abated for some time. Occasionally aspirin is used in large dosage, especially when there is intolerance to sodium salicylate. Cinchophen or neocinchophen are also satisfactory remedies, but must also be given in large dosage. Stomach intolerance to this large dosage is a frequent occurrence. This is true whether the natural or synthetic salicylates are used, and the research conducted a few years ago by the American Medical Association, Council on Pharmacy and Chemistry, establishes the fact that there is practically no difference in the toxicity in the natural and synthetic preparation. When the salicylates must thus be discarded, or other substitutes resorted to, a prolongation of the attack and an unhappy solution to the therapeutic efforts may be the result. In this connection I would like to call your attention to a method of treatment which has been used at the Cincinnati General Hospital routinely for over ten years. In 1914 I published a report of 125 cases of acute rheumatic fever, in hospital and private practice, treated by the intra-rectal administration of sodium salicylate. What I said at that time about the method I desire to repeat now with even greater emphasis since this method has survived the test of time. The intra-rectal salicylate therapy had its inception in the wards of the Cincinnati General Hospital after many failures with oral administration. The method has for its justification the ability to answer the requirements of any therapeutic agent: (1) the ease of administration; (2) the ready absorption of the drug; (3) a minimum of untoward effects; (4) the ability to administer large quantities of the preparation which is to be advocated; (5) the removal of the residue of the drug from the bowel by subsequent enema, if the dosage ever proves excessive. The method of administration is as follows: A cleansing soap suds enema is given, and as soon as

effective is followed by the salicylate enema given by means of a rectal tube attached to a Davidson syringe or a funnel. The dose varies according to the weight and sex of the patient, and also according to the severity of the attack. The first adult dose in men is usually from 8 to 10 grams; in women 6 to 7 grams. Women are apparently more susceptible to the toxic effect of the drug than are men. The amount of salicylate to be given is incorporated in 120 to 180 cc. of plain or starch water, with the addition of 1 cc. of laudanum. A similar dose, or one slightly smaller, is given in twelve hours. On the second day the dosage is increased from 30 to 50 percent, at the end of which time the symptoms have usually abated, but if not and no toxic symptoms have arisen, a still larger dose is given until the limit of tolerance is reached. Usually very large doses are possible by this method, and we have given as high as 30 grams in one day. Where salicylism has been excessive it often appears within three to six hours after administration of the drug, and when this occurs the remaining unabsorbed portion of the salicylate may be washed out of the bowel by subsequent enema. In testing this method it was interesting to note the promptness of absorption by the rectal mucous membrane. Usually within fifteen minutes, always within thirty minutes, a strong ferric chlorid reaction appeared in the urine and the reaction usually persisted for from forty-eight to seventy-two hours after the administration of the drug ceased. As I reviewed the cases which I have quoted to you today I was convinced by certain effects of this treatment—immediate amelioration of the pain, subsidence of the temperature, as if by crisis within forty-eight hours, with the pulse rate slightly slower in its drop to normal usually twenty-four hours later. The injections are given but once daily after the abatement of the symptoms, and then after several days the dosage is gradually diminished, perhaps finally given in moderate quantities by mouth.

In conclusion, I wish again especially to emphasize that the fight against rheumatic heart disease must, of course, resort to prophylactic measures such as tonsillectomy, but there must also consist in an aggressive form of medication against the rheumatic fever.

DISCUSSION

J. H. P. GAUSS (Indianapolis): Dr. Heyn has given us an excellent paper on this disease which is so prevalent. We have many joint diseases which are really not concerned in this discussion, although in the chronic joint diseases we may have an acute process, such as occurs in the tuberculous or the syphilitic joint, which may simulate rheumatic fever. However common other acute inflammation of joints are, we come across a group of symptoms associated with joint involvement so frequently, and with

such uniformity in manifestation, that we have labeled this group "rheumatic fever." Just what that is biologically we do not know. We feel sure that it is an entity and due to some septic organism. I think we all agree that it is infectious in its nature. We think this because it is so frequently associated with other infections and because we have other conditions associated with rheumatic fever, such as chorea and the infections of the endothelial and synovial tissues. However, when we aspirate an acutely inflamed joint we do not find bacteria. They have never been found. We think, too, that it is an infectious disease because of its very common association with tonsillitis and other foci of infection, and yet we find many cases of rheumatic fever in which there has never been an attack of tonsillitis, and in which the tonsils are perfectly sound and not infected. There are undoubtedly many hidden foci of infection and we do not yet know their connection with rheumatic fever. That remains to be worked out.

The relation and the significance of the subcutaneous nodules and the Aschoff bodies in the heart, which are so characteristic of rheumatic fever, are not, I think, generally very well understood. We may find these nodules in other conditions which I think are definitely infectious and which may affect the muscles and fibrous tissues of the body. The thing we call "muscular rheumatism" or myalgia, for instance, may be associated with subcutaneous and intramuscular nodules which have been found by the pathologists to be identical histologically with the Aschoff bodies in the heart that are found in rheumatic fever.

The salicylates are practically the only things we have for treatment in rheumatic fever, except the things Dr. Heyn brought out. I think if I could use only one thing in rheumatic fever I would consider rest more important than anything else. We can get rid of the acute symptoms by means of the salicylates, but if we cannot use them I think we prevent the sequelæ as well by absolute rest as by means of the salicylates. Those are very important points in the treatment. It is an interesting speculation as to just how the salicylates act. There are several possibilities. The one we naturally think of is that the salicylates are bactericidal. In a series of experiments undertaken by Swift, in which he inoculated a large number of joints with streptococcus viridans, there were more joints found with pus in them in the animals which had not been given salicylates therapeutically than in those which had. This would seem to corroborate the theory of the bactericidal effect of the salicylates. In a later series in which he inoculated the joints with non-hemolytic streptococcus, he found that there was always a higher proportion of severe arthritis among the controls and a greater per-

centage of mild arthritis in the group to which salicylates had been given. The natural inference is that the salicylates prevent the inflammation from becoming severe. Swift throws out the suggestion that the action may be bacteriostatic rather than bactericidal.

Another way in which the salicylates may act is by the stimulation of antibodies, but in some investigations that have been made it has been found that in those animals which have been infected with non-hemolytic streptococcus and treated with salicylates there have been fewer antibodies found than in the untreated controls, so it can hardly be that. It is possible that they act by rendering the joint fluid acid, but on puncture the joint fluid is always found to be alkaline so it cannot be in that way.

Two major things remain to be done in the rheumatic fever problem: First, the isolation of the specific germ; and second, the development of an antitoxin or serum. Until then we shall have to depend for our therapeutics upon the more or less empirical methods which Dr. Heyn has so well outlined.

HUGO O. PANTZER (Indianapolis): I am much pleased to hear of sodium salicylate given in large doses. I have been wedded to sodium salicylate since 1885 and have been giving it in large doses.

I began the use of the salicylates because of the following interesting observation. While in Vienna in 1885, a woman was presented to the clinic who had been confined in the lying-in ward and who had become infected and developed empyema of the chest. She had been sent to the surgeons, who said, "We do not operate on the dying." She had a pulse of 80 or 90, a high temperature and a very dry skin and tongue. The professor of internal medicine told them to give her 15 grains of sodium salicylate hourly for eight doses, then one-half that dose every four hours. He said, "When you return, this woman will have a clean, moist tongue and skin, and will be asking for something to eat." I thought we would go to see a postmortem, but the next morning the patient had a clear, moist skin and was much improved.

I have used the salicylates since with marvelous results, but always in large doses. I give it by rectum when the stomach will not retain it, and give it with sodium bicarbonate even by mouth. In this way it seems much more acceptable to the stomach.

VOLVULUS OF THE FALLOPIAN TUBE*

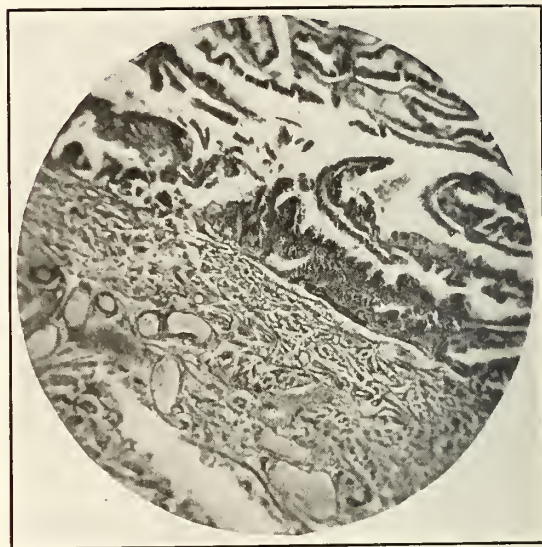
WILLIAM E. GABE, M.D.

INDIANAPOLIS

Cysts or tumors of ovaries with twist are very common as causes of acute abdominal conditions requiring surgical treatment. According to Mar-

tin five per cent of all ovarian tumors or cysts become thus strangulated, and some authorities put the figures as high as forty-seven per cent, as in the case of Kustner. Of less frequency, but of equal importance is the twisting of fallopian tubes that are enlarged, such as hydrosalpinx, pyosalpinx or ectopic gestation. Anspach¹ of Philadelphia in 1912 reported eighty-eight such cases collected from the literature. Of greatest rarity and interest however are twists with strangulation of uterine adnexa in children, and of twists in so-called normal adnexa. It is the latter, with a report of a case, that is especially to be considered here. The literature of the last twenty years reveals only twenty-five cases of twist of ovarian tumors occurring before puberty, and of only fourteen in normal adnexa at any period of life.

Miss M. L. C., referred from Fillmore, Indiana, entered the Methodist Hospital, November



No. 1.—Section of tube proximal to the twist showing its normal condition. There is no organic disease present.

17, 1922, complaining of pain in the right lower quadrant of the abdomen accompanied by nausea and vomiting. The family history was irrelevant. The patient had had pertussis, rubella, rubeola, chicken pox and typhoid fever during childhood. Her menses were established at eleven years of age, were fairly regular, the duration of the flow was five to seven days, and there was no dysmenorrhoea. Her present illness was ushered in by dull pain across the entire lower abdomen two days previous to admission, with nausea and finally vomiting. The pain gradually radiated to the right lower quadrant and became more severe in character, the patient had an involuntary bowel movement in bed, and her general condition was such that she was sent to Indianapolis for surgical treatment. Physical examination revealed a fifteen-year-old obese girl lying with her knees

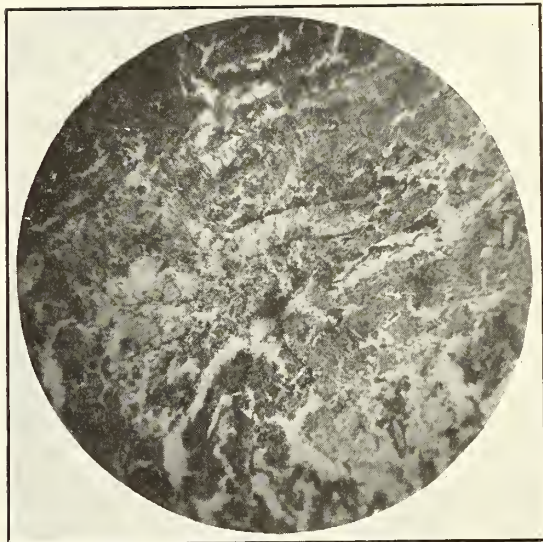
*Presented before the Section on Surgery of the Indiana State Medical Association at the Marion session, September, 1925.

drawn up and on her right side, suffering considerable pain. The head and neck, extremities and thorax revealed nothing pathological. The abdomen was the site of a thick layer of fat, was somewhat rigid on the right and was exquisitely tender over the right lower quadrant, the point of greatest tenderness being over McBurney's point. The patient had an unruptured hymen preventing a vaginal examination, and because of the signs and symptoms being typical of acute appendicitis, a rectal examination was not done. The temperature was 100, pulse 130, respiration 24. The blood pressure was 118/84. The urine was negative. Blood count showed the red cells to be 4,700,000, white cells 18,000, with seventy-eight per cent polymorphonuclear cells. The abdomen was opened under a diagnosis of acute appendicitis. Free blood-stained fluid was encountered at once. The appendix, although bound down by old adhesions was not inflamed and was obviously not the cause of her present illness. Upon exploring the pelvis a mass the size of a large orange was found occupying the site of the right tube. Upon proper exposure this proved to be a twist involving the right tube only, the twist starting about 4 cm from the uterus and occurring through two and one-half turns. The ovary on this side was perfectly normal, as were the adnexa on the opposite side of the pelvis. The strangulated blackened right tube was removed, as was the appendix and the abdomen closed. She made an uneventful convalescence, going home on the sixteenth day. A letter a few days ago, nearly three years after operation, states she is in good health and has normal regular menstrual periods.

Kustner's law, to the effect that right sided adnexa twist from right to left and those of the left from left to right has proven true in the large majority of the reported cases, and was true in the present case. Sanes², Anspach¹, and Smith and Butler³, show that twists occur in the right adnexa three times to one compared with the left. This may be explained by first, there being more room on the right, since the sigmoid encroaches on the left pelvic cavity, and second, that the peristaltic action of the caecum and the small intestine on the right is much greater than that of the sigmoid on the left.

As brought out by Wells⁴, the condition of torsion of a normal adnexum has never been diagnosed before operation. When a diagnosis has been made it has usually been acute appendicitis, and Ehrenfest⁵ of St. Louis, states that the mistaken diagnosis of acute appendicitis in these conditions is really an important clinical fact. Other than for the sake of scientific accuracy the mistake is of small import, because either condition demands immediate surgical intervention. Those cases reported in the literature show generalized lower abdominal pain becoming localized in the

right lower quadrant of the abdomen (except of course in cases of twist occurring on the left side), accompanied by a rise in temperature, nausea and vomiting, leukocytosis, and with an increase in the percentage of the polymorphonuclear cells. Eight of the fourteen reported cases were below twenty years of age and were virgins, — hence vaginal examination was impossible or unsatisfactory. The same was true of the present reported case. In several of the reported cases, however, rectal



No. 2.—Section of tube distal to twist showing the extravasation of blood into the tissues due to the mechanical strangulation, but with no evidence of organic disease present.

examination revealed a mass on the affected side. For the sake of a correct diagnosis therefore, every young girl in whom a vaginal examination is unsatisfactory or impossible, presenting symptoms and signs of acute appendicitis, no matter how typical in character, should have a rectal examination. This may not only reveal much of corroborative value in the diagnosis of the appendicitis, but offers almost the only means of identifying a volvulus of a tube in such a situation. An exception might be made in those cases where the localized right lower quadrant pain is preceded by epigastric pain, since such a history is nearly pathognomonic of acute appendicitis.

It is easy to see how an ovarian cyst as large as an orange on a slender, weak stalk or pedicle might become twisted with resulting strangulation. Neither is it difficult to understand the same in regard to a rounded large hydrosalpinx, pyosalpinx, or ectopic gestation at the extremity of the tube. These all offer the same mechanical situation, namely, a heavy large mass on a slender stalk, easily bent and twisted with a shutting off of the venous return first and the arterial next with a resulting passive congestion of the points beyond the twist which may later even become

gangrenous.' Ovarian cysts usually are not adherent to surrounding structures, whereas hydro- and pyosalpinx are, hence twists occur much less frequently in the latter conditions. An explanation cannot be made with such facility in regard to the cases of tubes in virgins who had no history of previous trouble of any kind and in whom the adnexa on the opposite side were found normal.

The attempted explanation of how these torsions of normal tubes take place presents the most interesting aspect of the subject. Of the many theories, the following are perhaps the most plausible: First, that the tube in question has an unusually long mesosalpinx that would allow undue mobility. This is the most generally accepted theory. A long mesovarium would predispose to the same condition in regard to the ovaries, a number of case reports of which are to be found in the literature. The second most acceptable explanation is that the tube twists due to a passive congestion and that the twist is imparted by the spiral course of the vessels supplying the tube. Payr⁶ in 1906 did a great deal of work in regard to this feature, removing a spleen and injecting the vessels and producing as much as 125 degrees torsion of the spleen by this procedure. The veins are longer and more flexible than the arteries in the mesosalpinx, and when passive congestion occurs these assume a spiral form or course and impart a twisting motion to the tube or tumor. At least one case is reported where this passive congestion occurred as a result of an infarct in the mesosalpinx, and the tube histologically was normal except for areas of extravasated blood as a result of the strangulation. To further favor the idea of passive congestion being an important factor here might be mentioned the fact that a majority of the twists in normal tubes occur around the menstrual time, and three were in women who were normally pregnant, both of these conditions of course being accompanied by a physiological passive congestion of the pelvic organs. The third explanation, championed especially by Anspach¹ and Norris⁷ assumes the case to have a tube infected by a vulvovaginitis in childhood, later developing a hydrosalpinx, which remains latent without symptoms and unrecognized until the acute torsion occurs. Anspach also feels that an exanthematous disease in childhood or an attenuated tubercular infection might so damage the tube that it would be predisposed to torsion under favorable conditions later. Such generalized conditions, however, would probably involve the other tube, and it is to be remembered that in eight of the reported cases the opposite tube was normal, and of the remaining seven, the condition of the opposite side was not mentioned in five. Likewise such infections would probably seal the tube and involve the fimbria, whereas in several of the cases the ostia of the tubes were mentioned as open and the fimbria normal. In the case re-

ported here the tube was normal proximal to the twist, the ostium was open and the fimbria were of the customary appearance.

Undoubtedly this condition of torsion of fallopian tubes is not as rare as it appears to be. These cases are not all reported in the literature of course. The writer knows of two Indianapolis surgeons who have had such cases that are not in the literature and doubtless there are many others throughout the country. The diagnosis can probably be made in a certain number of cases by careful study and immediate operation performed.



No. 3.—Section of tube distal to twist showing infiltration of red blood cells subperitoneally.

The following conclusions may be drawn:

1. Twists of hydrosalpinx, pyosalpinx and ectopic gestation are not at all uncommon, but twists of tubes without demonstrable preceding pathology in virgins are rare, as indicated by the literature.
2. Such cases occur on the right side in the ratio of three to one, and are usually diagnosed as acute appendicitis.
3. The correct diagnosis has never been made preoperatively in the reported cases.
4. A long mesosalpinx, a long tube plus passive congestion which distends the spiral thin-walled veins and thus imparts a twisting motion to the tube is probably the most logical explanation of the way in which such a torsion takes place.
5. The rarity of the condition is more apparent than real.
6. Torsion of the fallopian tube constitutes a surgical emergency.

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DISCUSSION

J. H. EBERWEIN (Indianapolis): In this drawing it looked as though the tube distal to the twisting was very much enlarged. What did that contain, fluid or blood?

JAMES Y. WELBORN (Evansville): I never had a distinct case of this kind. Unless it were caused by either the twisting of an ovarian cyst on the pedicle or the twisting of the uterus on its ligaments, I do not know what could have caused it. I rather think the idea the doctor suggests in regard to the cause of the twisting, that it is muscular, increased the length of the tube. That in a way would undoubtedly be a cause for such a condition.

W. H. WILLIAMS (Lebanon): I think the doctor is to be congratulated upon the subject of the paper and his thoughtfulness in calling our attention to a rare condition of this kind. We often expect to find a torsion of the tube where there is a hydrosalpinx, or a pyosalpinx, or an ectopic or something of that sort, but to find a tube in a state of torsion where neither of these conditions were present, is a rare find. It might easily be overlooked.

H. S. LEONARD (Indianapolis): I think the doctor should have a vote of thanks for bringing this to our attention. It is a rare condition and one we would not be apt to think of unless our attention were called to it. We know other conditions might cause trouble, but so far I have not run across a condition of this sort.

WILLIAM E. GABE (closing): Answering Dr. Eberwein, the tube was full of extravasated blood squeezed out of the tissues, as indicated in the photo micrographs, but there was no other pathology present.

I hesitated about bringing a rare thing before a general meeting of this kind. It is not perhaps wise except for the fact that in the case of a little girl from nine to sixteen, a virgin girl, such a condition would not be thought of. I went quite extensively into the literature, and find that the condition was never diagnosed before operation. There is no reason why it should not be diagnosed if a rectal examination were made, which was not done in my case. I did not take the time to do it. The child was very sick with nausea, vomiting, pain and rigidity, and everything seemed to point to an acute appendix. Certainly the old dictum of carefully studying our cases is wise.

DIVERGENT STRABISMUS*

BURTON W. EGAN, M.D.

LOGANSPOUT

It is a fact to be deplored that ophthalmologists, as an entire class, do not accord to the ocular muscles the attention which they deserve. The

majority of ophthalmic specialists are rather inclined to examine the refraction in asthenopic conditions and to content themselves with the correction by lenses of any ametropia detected, without looking very deeply into the matter of the performance of the highly specialized muscular functions necessary to the perfectly coordinated use of the eyes. There are many notable exceptions to this general statement, it is true, but, nevertheless, the dictum advanced holds true concerning the rank and file of oculists, as one may readily prove by reading a paper on muscular anomalies before any ophthalmological society. There will at once be brought forth a display of agnosticism and opposition on the part of the "correct the refraction and let it go at that" class.

The obscure presentation of the subject in most ophthalmological works, where too often valuable, practical facts are hopelessly buried under a mass of confusing and useless verbiage, may be held accountable for such indifference.

The beginner in the study of the ocular muscles is overwhelmed and stampeded at the very outset. Conflicting statements, accorded equal importance; elaborated discussions of complicated and expensive apparatus not at all required; lack of definite statement of simple, practical methods of procedure; confusing presentations of opposing theories of no real value, all leave him at sea and in disgust with the entire subject. Slight wonder, then, that many abandon the study of this important subject in its very incipiency, and make up their minds to "correct the refraction and let it go at that!"

For several reasons, an especial interest is associated with the study of the divergent form of concomitant strabismus. In the first place, as it is far less common than the convergent form, the etiology of its various types, insofar as relates to the muscular anomalies present, has been less thoroughly discussed. In the second place, the difficulties attending its rectification by surgical procedures are generally held to be greater than those connected with the correction of the convergent strabismus. Lastly, amblyopia of the squinting eye, defying improvement by correction of the refractive error, is by no means as common, and, if we believe that the irremediable amblyopia of strabismus is, for the most part, congenital and not acquired, does not seem to present itself as an etiological factor as frequently as in the convergent variety. While it must, of course, be admitted that a corneal opacity or a unilateral cataract, especially in an adult, will in many cases determine which eye shall diverge, it is certainly more common in divergent than convergent strabismus, and particularly in divergent strabismus associated with bilateral myopia, to find the vision equal, or nearly equal, in the two eyes after correction of the refractive error.

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Divergent strabismus is quite generally regarded simply as a condition, diametrically opposed to convergent strabismus. We forget that, while one muscular anomaly alone, a convergence excess, is causative of most convergent strabismus, such is not the case in all instances of the divergent type. It is, I think, on account of the very general lack of recognition of this latter fact, that divergent strabismus is regarded by many as so much more difficult to rectify than is convergent strabismus.

Divergence of the eyes is accomplished by the simultaneous rotation of both eyes in an outward direction. According to Dunnington, "This act of diverging the visual axis probably is produced by simultaneous equal relaxation of both internal recti muscles, accompanied by equal simultaneous contraction of both external recti. There is a definite cerebral center to govern divergence. Neurologists are loath to admit the existence of such a center, but clinical evidence strongly supports the contention of ophthalmologists that one exists. Dr. Alexander Duane, who made a very thorough study of the ocular movements, is of the opinion that this center is in close proximity to the nuclei of the sixth nerve, which are situated on the floor of the fourth ventricle, near the median line. Errors of divergence result from an over action or under action of this center. A divergence excess is, therefore, present when the eyes possess an abnormally great power of simultaneous outward rotation. This is a common condition, and is the starting point for many divergent squints."

Etiology. Based upon the general etiology, divergent squint is divided into the paralytic and non-paralytic types. Since this paper is not concerned with the paralytic type, we will pass it by without further mention. The etiology of the convergence insufficiency cases may be found in general or special pathological states, as syphilis, chronic renal disease, auto-intoxication of intestinal and hepatic origin, and recent attacks of infectious diseases, as epidemic influenza, diphtheria, typhoid fever, pneumonia, or other exhausting affections. These may be responsible for the derangement of the innervation of the muscles and that, too, without inducing a condition of paresis. There may also exist, as most efficient causes, foci of infection, located in the accessory sinuses of the nose, at the apices of the roots of the teeth, or in the tonsils.

Many cases of incoordination, due to such causes, may be temporary in character, and the muscular functions may return to normal after the removal of the general pathological state responsible, as in the toxemias due to foci of infection after eradication of the special infective foci, or in lues after a scientific course of specific treatment in the absence of paresis, or in asthenic

states after the bodily tone has been restored to normalcy.

The significance to be emphasized in this connection is this, that one should make himself certain, through careful inquiry into the individual's general bodily condition, that the existing muscle imbalance is not of a temporary character, due to pathological causes of the types mentioned, before resorting to radical measures of treatment, directed to the state of imbalance itself. Surgical treatment, for instance, under such conditions of temporary character, might eventually prove disastrous for very obvious reasons.

The permanent types of muscular incoordination point definitely to the fact that, in addition to the correction of the existing refractive anomalies, special attention must be given to the imbalance as a definite condition urgently demanding relief. The detection of such forms of imbalance frequently will furnish an explanation of the existence of serious states of functional nervous derangement, the causes of which previously have been undiscoverable.

It is very difficult to define accurately the etiology of the divergence excess cases. The secondary form follows convergence insufficiency simply as nature's way of making the deviation the same for both distance and near. The etiology of the primary type is not thoroughly understood. We know these patients are born with an over active power of divergence, but, due to the extreme activity of the converging power, it does not trouble the patient until later in life, just as a patient with a high degree of hyperopia may have no trouble from it until adult life is reached. All one can say is that primary divergence excess is due to a congenital over activity of the power of divergence.

Symptoms. The symptoms are diplopia, and the reflex symptoms induced by the effort to correct the deviation. These are asthenopia, pain in the eyes, conjunctival irritation, and headache, which may be super-orbital, orbital, temporal, or occipital. Frequently, we also have digestive disturbances, nausea, and interference with the general nutrition. For obvious reasons, these symptoms, particularly the reflex disturbances, are more manifest in the periodic than in the continuous squint.

Types. If we seek to classify cases of divergent strabismus according to their etiology, that is to say, according to their accompanying muscular anomaly, we find that they fall, as would naturally be expected, into three distinct groups: First, those accompanied by an insufficiency of convergence; secondly, those accompanied by divergence excess; and, lastly, those presenting both these anomalies in varying proportions. If we attempt to base the classification upon the accompanying refractive error, we again divide the cases into three groups: Those in which both eyes

are myopic, those in which both eyes are hypermetropic, and those in which one eye is myopic, and the other hypermetropic. The second classification is the one usually adopted, but seems to me to be faulty in that it takes no cognizance of the fact that any one of the three muscular types may be present. Further, it seems to me that it assumes that all cases of divergent strabismus are accompanied and caused by convergence insufficiency. Such is not the case, most certainly. On the other hand, a classification based solely upon the existing muscular error is not entirely perfect, inasmuch as the different muscular errors are not invariably associated with a constant error of refraction. Its practical value, as a guide to treatment, cannot be over estimated, and the fact that, in the vast majority of cases, there is a constant relation between the muscular and refractive errors constitutes a strong plea for its adoption. On the basis of the predominating muscular error, we may, therefore, attempt the classification of divergent strabismus as follows: (1) divergence excess, (2) convergence insufficiency, (3) a combination of divergence excess and convergence insufficiency. Divergence excess is usually associated with hypermetropia, and this group of cases constitutes by far the greatest number of all cases of divergent squint. Myopia sometimes occurs in this class, but is rare. Convergence insufficiency constitutes the second largest group, and, in this class, myopia is most frequently found, hypermetropia rarely so. In the divergence excess and convergence insufficiency class, antimetropia is most frequent; bilateral myopia and bilateral hypermetropia less frequent. By regarding divergent strabismus from this viewpoint, we obtain important indications in regard to operative measures, and can readily determine how much or how little benefit is likely to accrue from correction of the refractive error.

The determination of the muscular anomaly in any case of divergent strabismus is simple. In a pure case of divergence excess, the deviation exists only when the patient gazes at distant objects. The power of convergence can be shown to be practically unimpaired by having the patient attempt fixation on the point of a lead pencil, gradually brought near to him in the median line. In typical cases, he will maintain bilateral fixation until a point within three or four inches of the root of his nose is reached. When this is the case, convergence insufficiency cannot be present. In a pure case of convergence insufficiency, the squint will be more marked for near than for distant objects, one eye diverging more and more as the pencil approaches the face. When divergence excess and convergence insufficiency are present, the deviation will be marked during both distant and near vision, and the power of convergence will be either entirely absent, or will be manifest only to a slight degree. I wish to emphasize the fact stated above, that divergence

excess, associated with hypermetropia, constitutes the majority of all cases of divergence, and that these cases develop into true squints about the time of puberty.

Treatment. In the treatment of divergent strabismus, it is generally held that our first endeavor should be to correct the refractive error, and that, after such correction, a cure may result without resort to operative measures. A cure may be obtained, but only in those cases in which myopia, fairly equal in degree, is present in both eyes, and in which convergence insufficiency is the sole, or predominating muscular anomaly. Correction of the refraction produces no effect when the deviation is due to divergence excess. Since, as has already been pointed out, divergence excess constitutes by far the greater number of these cases, it follows, then, that most cases of divergent strabismus necessitate operative measures and not refraction for their cure. In fact, many cases of pure divergence excess will have little or no refractive error at all. The results of operative measures are exceedingly satisfactory, if we are guided in our choice of operation by the muscular anomaly present. The surgeon who makes it his practice to employ in all cases the same operative procedure is certain to meet with a greater number of failures than he who varies his method to accord with the muscular error he is called upon to attack. In the cases of divergence excess associated with bilateral hypermetropia, advancement of both interni will result in failure. The proper procedure consists in a free tenotomy of both externi, repeated if necessary, and this is no less true when, as is rarely the case, the divergence excess is accompanied by bilateral myopia. In the hypermetropic cases, even if a fairly well-marked convergence insufficiency coexist, the tenotomy still should constitute the primary measure, and should be persisted in until the deviation is corrected for distant vision. When bilateral fixation for distant objects has been thus obtained, it will not infrequently be found that the power of convergence has returned to normal and that further interference will be unnecessary. Cases of myopia, associated with convergence insufficiency, in which the deviation persists after full correction of the myopia, require advancement of one, or more generally of both, interni, and in no circumstances should tenotomy of the externi be performed in pure cases of this type. When both divergence excess and convergence insufficiency in marked degree are associated, the predominating muscular error, which, except in cases of bilateral myopia, is usually the divergence excess, should be first attacked by means of free tenotomies of the externi.

The following case illustrates this latter group: A girl of fifteen, a hyperope, with a muscle imbalance of twenty degrees for both distance and near, came to me for relief from extreme headaches whenever close work was attempted. Her

refractive error, which was of a minor degree, had been corrected, but had no effect upon the headaches whatever. I finally persuaded her parents, who were very skeptical of any operative procedure, to permit me to operate. I did a free tenotomy on both externi, thereby correcting her divergence excess. On her first visit to my office after the operation, I found that her power of convergence had improved spontaneously after removing the divergence excess. At that first visit, it was found that her former twenty degrees for both distance and near was reduced to two degrees. I have kept her under close observation during the past school year, and she has had but one or two very slight and short attacks of headache. She has been able to carry her full amount of school work with comparative ease and comfort—a thing she had never experienced before during her entire school life.*

DISCUSSION

GEORGE F. KEIPER (Lafayette): The essayist has well remarked that the study of the ocular muscles is a difficult task. Hence it is slighted by so many who have essayed the work of finished ophthalmologists. The late Dr. Herman Knapp, in a talk with Helmholtz after he produced his monumental work on *Physiological Optics*, said to the great master that he enjoyed reading the book, but the chapter on ocular muscles gave him a great deal of trouble to understand. To this Helmholtz replied that the chapter referred to gave him the most concern to prepare. If these great minds should falter thus we need not be discouraged with the difficulties of the subject, but rather apply ourselves with greater diligence to the understanding of the whole matter.

In reading this paper I am convinced that there is a confusion of terms. The paper is really one on exophoria, and not external squint as we ordinarily understand the latter term. It is wise for us to have a nomenclature around which we can all work out this problem. I know of none better than that given us by Stevens years ago which was later amplified by Savage, who gave us information concerning cyclophoria. According to this nomenclature a squint is called a heterotropia to distinguish it from another condition called heterophoria. A heterotropia is a squint which the patient sees. The doctor sees it and everybody sees it, *i. e.*, a true strabismus. Hence we have an exotropia when the eye turns out, an esotropia when the eye turns in, and a hypertropia when the eye turns up, and a catatropia when the eye turns down. But an heterophoria is a con-

dition which is visible to no one, and is only made apparent to the patient by the interposition of a prism, or to the oculist by the cover test for example. The Maddox rod may be used too, and by the prism and the rod in place the amount of defect may be accurately determined.

We have several forms of heterophoria: esophoria, when the tendency of the visual axis is in; exophoria, when the tendency is out; hyperphoria, when the tendency is up, and cataphoria, when the tendency is down. Cyclophoria is due to insufficiency of the oblique muscles of the eye. I am inclined to agree with Savage that esophoria may be (a) pseudo or (b) intrinsic; if intrinsic it may be either sthenic or asthenic; that exophoria may be likewise; that hyperphoria and cataphoria is always intrinsic when the superior and inferior recti are the only factors, and that it may be either sthenic or asthenic. That hyperphoria and cataphoria is always sthenic or asthenic, if intrinsic. It may also be pseudo or false trouble. Hence as the paper is apparently dealing with exophoria we will rule out of consideration all the other heterophorias or heterotropias and devote our attention to this trouble only.

Reasoning from the above and from clinical observation we have four classes of exophoria: (a) that with deficient accommodation, the convergence insufficiency of Donders. Myopia may be the cause in this condition, but in my own experience hyperopia and hyperopic astigmatism are also potent factors. (b) That with hyperopia and hyperopic astigmatism in which there is normal divergence but insufficient convergence. (c) That with hyperopia and hyperopic astigmatism with normal convergence but excessive divergence. (d) That with hyperopia and hyperopic astigmatism in which both convergence and divergence are faulty.

Patients with exophoria are liable to be neurasthenic and this factor is to be regarded. Vertigo may be a symptom. In all these conditions we are examining a patient with a pair of eyes and not merely the eyes, for an underlying cause. We are to be physicians first and ophthalmologists, not refractors, last. For after all the eyes and their appendages are but a part of the organism as a whole. We cannot separate the problem from those of innervation, digestion and circulation. We must look for health defects. It is wise to examine the sinuses for infection, and the teeth should be examined. Really we should keep in mind the three "Ts," tonsils, teeth and toxemia. As Reber well puts it, we deal with peculiarities which no dissector's knife can demonstrate and where the microscope is equally helpless.

Forty percent of all exophoria occurs in patients from thirty-one to fifty years of age. But only 6 to 7 percent occur up to the age of twenty years.

How are we to proceed in face of this condition? Here as elsewhere in the body a correct diagnosis is essential. Hence: First: A careful

*NOTE—Special acknowledgment is due Dr. John H. Dunnington for his lectures on "Ocular Muscles" at the New York Eye and Ear Infirmary, and to the following articles: "Divergent Concomitant Strabismus, the Muscular Anomalies and Refractive Errors Accompanying It, and Its Treatment," by Herbert Wright Wooten; "Practical Considerations in Connection with the Study of the Dynamics of the Ocular Muscles," by John Munro Banister; "Functional Anomalies of the Ocular Muscles," by John Munro Banister.

history record is of the utmost importance. Everything which may bear upon the trouble is to be recorded. Time and patience are necessary to elicit everything from the patient. Do not be in a hurry at this point. Second: Carefully examine the conformation of the patient's face, especially as to the placement of the eyes in the orbits. Locate the orbits, and study their relationship to each other. We are not symmetrically built. One eye may ride higher than the other. More of the features may be on one side of the face than the other. The eyes may not be equidistant from the midline of the face. Are the external ocular structures normal? Third: Make a rough test of the patient's ability to converge, by slowly approaching your finger to the root of the nose, keeping it always on a level with the eyes. Note the reaction. This will as a rule show whether the patient's eyes "track" or not. Fourth: Test the monocular and then the binocular accommodation of the patient (and Prince's rule is very handy, with Duane's fine line) after correcting the manifest error of refraction and then without the correction. Fifth: Get the meter angles of convergence. Sixth: Use the phorometer for close range at fourteen inches. Stevenson's instrument is very handy. To estimate the amount of error, prisms from the trial case are necessary. Do not depend on the markings to give the amount of error. Seventh: Then use the phorometer for distance at twenty feet. Use not only Stevenson's instrument, but supplement with Maddox' rod and prisms. Test for cyclophoria according to Savage's rules. Eighth: Determine the strength of each ocular muscle, using Risley's rotary prisms. Ninth: Determine the refractive error under full cyclopegia. Atropine is often indicated where the ciliary muscle refuses to fully relax under homatropine. The rest thus procured for the ciliary muscle often is all that is needed for the exophoria. Tenth: Under this cyclopegia, determine the muscular error with the phorometer and the Maddox rod. Especially look for hyperphoria. Determine the strength of each ocular muscle by the Risley rotary prisms. Eleventh: determine the intraocular condition of each eye, with the ophthalmoscope. If necessary use the slit lamp for defects not otherwise discoverable. The red free light is not to be despised. Thus it will be seen that considerable time, patience and apparatus will be required before we have finished the examination for a diagnosis. But all this is worth while. To discover the muscular error one may be compelled to resort to the occlusion of the eye for a considerable period of time. This procedure may also be necessary to uncover all the error which the patient possesses.

We have, therefore, four principal tests: (a) Exophoria for near; (b) exophoria for distance; (c) prism divergence and (d) convergence near point.

We are really dealing with the diverging power of the external recti plus the obliques. The opposing muscles are the internal recti plus the vertical recti in convergence.

This is a vast subject and we have merely touched the edges thereof.

Treatment: First, correct the error of refraction, under cyclopegia. Deduce from the amount of the manifest error what the correction shall be for constant wear. Second: General treatment: (a) Hydrotherapy is indicated and the shower and needle baths are invaluable used daily as a routine. Every bath room should be equipped with them. After the morning bath the patient stands under the shower and starting with the hot water, turns it gradually off until the water runs moderately cool, whereupon he steps from the shower and seizing an old-fashioned Turkish towel, the rougher the better, rubs the skin dry and until it glows. That is good exercise also. The needle bath can be used the same way. The patient must be taught to live aright. How many of these patients indulge in chocolate creams, for example, between meals and then wonder why they have no appetite at the table. Diet errors are many. The bowels must be kept open. The fruit juices are valuable. The slogan of today seems to be "an apple a day will keep the doctor away."

M. G. EREHART (Huntington): Unfortunately, I did not have a chance to see this paper previously, but I feel it is a very important subject. About two years ago I saw a case, in a girl of twenty-four, who had had the most excruciating headaches for three years. She had had some teeth pulled and had had her tonsils removed, but unfortunately no one had looked at her eyes. When I first saw the case I went over it thoroughly to see if I could find the cause of the headaches and left the eyes to the last, but when I came to them I found where the trouble was. I refracted this girl, using hemotropin, 1 percent, the night before, and every hour of the day I examined her, thereby obtaining complete cyclopegia. The refraction showed a mixed astigmatism in both eyes. Next day I went over the muscles and found an exophoria of about twelve degrees for distance and eighteen degrees at near. She had no power of adduction on her correction, and I had her use prism exercises, as I do in all these cases for home use—prisms from eight up to twenty, having them use different combinations and starting as low as necessary. I put the correction on this girl and had her start with the exercises, but I got nowhere. Within two weeks I put on two-thirds of her exophoria, base in for distance, with added prism correction below in form of bifocal. The girl was only twenty-four, but that gave her complete relief from headaches. I had her wear this prismatic correction with her refractive vorax for six weeks, and kept

her away from work. By that time I thought that the internal recti had regained a little strength. Perhaps they were not completely fatigued. I took off the prisms and put on only her refraction error and put her on exercises until she was overcoming about sixty degrees, base out, and then let her stop. That was the end of her headaches and she has been wearing that correction since.

I hesitate in these cases of divergent squint to do operative work until I have put them through the prism exercises and given them a thorough trial by exercising and strengthening the internal recti in these convergent insufficient cases.

C. N. HOWARD (Warsaw): The essayist starts his interesting paper with a plea not to overlook the ocular muscles in asthenopia. As a part of the refraction routine every patient can be asked to follow with his eyes the finger of the oculist as it travels up and down and to the right and the left, thus disclosing possible paralysis or heterotropia. The patient can then fix an object with each eye alternately while the other eye is covered so that heterophoria may be noted. The two tests together take scarcely half a minute. I have found for several years that the doing of these two simple muscle tests as a routine in every refraction case has served the very useful purpose of getting somewhat acquainted with the muscle condition at the first visit. One has to remember that this will not catch up the periodic imbalance if the patient should come at an interval time. However, if this superficial review, or the history, indicates imbalance, then more elaborate tests can be made as desired.

It would seem that proper refraction by the oculist and attention to the general condition by the home physician should be the first two steps toward overcoming muscle imbalance; for, as the essayist has well said, the incoordination may be temporary, due to a systemic condition. To these efforts can be added the periodic occlusion of the better eye and the use of the stereoscope. I have little faith in prisms.

If the above measures are inadequate, operative interference is the next logical step. Dr. Egan selects his operative procedure according to: First, whether the external rectus is pulling so hard as to produce a divergence excess in spite of a normal internal rectus. Second, whether the internal rectus is weak, with a normal external rectus, producing what is called a convergence insufficiency. Third, whether there is a combination of the two. As the surgeon forms his decision from these conditions, I would make a plea for him to err on the side of conserving power. In my own operative work it has appealed to me to give additional power to a partially helpless muscle whether its inability to do its full work is due to intrinsic weakness or relative weakness. Then, if the strength of the opposing muscle is

still in excess, curb it as exactly as may be through partial or complete tenotomy.

However, a careful reading of Dr. Egan's paper, which he kindly sent me, leads me to give more thought to the value, at times, of a tenotomy alone, and the doctor is certainly to be congratulated on the success he attained in the case of the patient whose history he gives us in his paper.

ALBERT E. BULSON, JR. (Fort Wayne): I do not believe in tenotomy for external deviation with the idea that binocular vision will be restored in consequence of the operation. A distorted ocular muscle balance remains. Furthermore, the rational method of procedure is to strengthen the weak muscles rather than weaken the strong ones.

I do not believe that operation in heterophoria ever did any lasting good. Ranney and Stevens were fanatics on the subject many years ago, and in the majority of their patients the ultimate effect was not beneficial and in some cases was positively harmful. I tried the plan when it was so popular, but soon abandoned it.

I would like to emphasize what has been said in favor of muscular exercises. The important thing is to strengthen the weak internal recti muscles, and that can be accomplished in a large proportion of cases by appropriate ocular muscle exercises properly and systematically carried out. No satisfactory results can be expected if the exercises are not employed conscientiously, daily, and for a prolonged length of time. The oculist must check the functional strength of the muscles frequently and determine to his satisfaction that the exercises are being conducted according to his instructions. I like the system by which fusion of objects is encouraged through the use of prisms, the strength of the prisms being increased steadily. Oftentimes the function of the muscles is disturbed by general conditions which will require treatment. Elimination and tonics oftentimes hasten the result.

What Doctor Keiper says regarding the constant wearing of prisms is quite true. Sometimes the functional strength of the muscles is impaired only temporarily, and to put on a prism at such times means giving a correction that is not needed. Oftentimes the mere correction of the error of refraction is sufficient to improve the ocular muscle balance, and if a prism is prescribed for an imbalance that is due to the effect of the error of refraction or some constitutional disturbance, a mistake has been made, and of course in such instances the patient is made more comfortable by removing the prism that is being worn. On the other hand, I know of patients who have been uncomfortable as a direct result of a slight constant heterophoria not corrected by appropriate glasses, and a prism worn constantly has given continued relief. Perhaps such cases would improve under muscle exercises, but if improvement

does not occur as a result of muscle exercises I prefer to give the patient a prism for constant wear rather than resort to any form of partial tenotomy.

In discussing this whole subject the essayist does not seem to have differentiated very clearly between the phorias and the manifest squint. In the latter condition a tenotomy, advancement, or a combination of both not only may be indicated, but prove entirely satisfactory from a cosmetic point of view. When it comes to a consideration of establishing binocular vision a discussion of the subject takes on a different aspect.

ALBERT E. BULSON, JR. (Fort Wayne): Pardon me for speaking a second time, but I do not think Dr. Egan's statement should go unchallenged, as he is making a dogmatic assertion that I do not think is subject to proof. Generally speaking, there are two schools of thought and practice concerning the management of muscle cases, and when Dr. Egan unqualifiedly condemns the use of prisms as never producing benefit he perhaps is speaking from his own experience, but he has no right to make his opinion apply to others who have a different experience. Because he does not get the cooperation of the patient is no sign that the rest of us suffer a similar fate. I do not believe that prism exercises are beneficial in every phoria, but that they are beneficial in a large percentage of the cases, especially when coupled with such systemic treatment as seems indicated, is beyond the question of doubt. Dr. Egan's differentiation between a phoria and a manifest squint is subject to considerable speculation, and evidently does not conform to modern teaching. A squint is an obvious deviation, but a phoria is a different proposition. Phorias generally are accompanied by asthenopic symptoms, whereas in manifest squint the patient excludes and therefore is less likely to suffer from any effort to obtain binocular vision. The treatment of squint by operation is largely for cosmetic effect.

O. G. BRUBAKER (North Manchester): If we are not careful, we are apt to get off onto the subject of the phorias instead of the subject of this paper. I think a lot can be done for the phorias by prisms and muscular exercises, but in the case of a man of say thirty years of age with divergent squint, we are not making his condition any better by trying to correct it with prisms and exercises. The subject of Dr. Egan's paper is not the correction of divergent phorias, but divergent squint.

C. W. RUTHERFORD (Indianapolis): One feature Dr. Egan did not take up that I believe ought to be emphasized in the consideration of these cases is whether or not it is a congenital condition. I would like to mention a case that I saw some time ago in which on routine examination I noticed that the pupils did not

contract to the convergence impulse. That excited my curiosity because they contracted thoroughly to direct and indirect light. I first thought I had a confusion of the Argyll Robertson pupil, so I looked up that subject and made further experiments. I noticed this patient did have a slight apparent divergence for distance, but when I attempted to get the convergence near point I was surprised that she made no complaint on the subjective test until I got up to about twenty centimeters from the eye, and then she said the test object began to double. The pupils in that case indicated a congenital condition; the convergence brain centers had not been developed. This woman was able to thread a needle with facility. She also gave a history of having been "nervous" all her life, and she was a hyperthyroid case as well.

The point I wish especially to emphasize concerns treatment. I would not think that a patient with no pupillary response to the convergence impulse would be a case for surgical treatment. This woman wears her distance glasses comfortably, as well as her near correction. She has binocular vision at reading distance without her eyes converging, and that shows to me that she has good vision for a deviation laterally.

B. W. EGAN (closing): There are just two points I wanted to bring out. In the first place, the confusion of the articles that I have read, including the text books—the more I read the less I knew. I had practically given up the muscle operation until two or three years ago when I was in New York and took a course at the Eye and Ear Infirmary under Dr. Dunnington, and I think if you do that a lot of your old theories will be discarded. There is not one case in a dozen where you get the cooperation of the patient with prisms. There may be cases where you will get results with prisms, but I have not run across them because I do not get the proper cooperation of the patient.

As to operative procedure, first, this girl had been through the mill two or three years and still had headaches. She had about twenty degrees—you can call it a squint or a phoria (but I certainly would not do an advancement).

Dr. Reese operated many cases and did an advancement. Finally he checked himself up, went back over a number and reopened the conjunctiva and looked for the insertion of the muscle, and he did not find one case that he had advanced but what the insertion had slipped back to the original point. He has discarded advancement altogether. He does an operation which he calls myomectomy, in which he takes a piece out of the muscle, but he does not do an advancement. I certainly would not advise a tenotomy of the external muscle in exophoria—I would be guided by the history and study of the patient.

Of course it is the exception that proves the

rule. If a patient is comfortable without operation, do not operate, but in the majority of these cases over ten degrees and up to twenty degrees—hyperopic, I mean—I have not seen good results without tenotomy. Under ten degrees I certainly would not operate.

PELVIC INFECTIONS—ESPECIALLY SALPINGITIS*

THOS. J. STRONG, M.D.

PERU

However trite it may be there probably is no other preventable disease so much sinned against as this one, for statistics and records show that ninety per cent of all cases of female invalidism and morbidity (not speaking of the fatal cases of puerperal sepsis) are due to preventable causes. The vast number of cases of parametritis, oophoritis, salpingitis and many others, which produce chronic invalidism, come to our notice in their severest phases only, and many of the milder cases that we do not see at all undoubtedly drag through life unobserved and unrelieved.

The whole subject of pelvic infections may be classified into two types—the ascending, or infections through natural channels, and the descending, or infections through the blood stream and contiguity. In the majority the infection is through the first or ascending type, and of these we have two types of overwhelming frequency—the gonorrhoeal and puerperal. I want to speak a little of the latter just now.

Many keen observers have demonstrated that over ninety per cent of infections of the pelvic organs are caused by unclean fingers, hands, or instruments in concluding an examination or in operations about the genital tract, more especially during the puerperum, after an abortion, and so forth. The infection in these cases enters through a tear, abrasion, or some other slight injury, ascends by way of the lymphatics and veins to the parametrium, causing a thrombo-phlebitis, adenitis, and an infiltration inside the broad ligaments—a distinctly extra or retro-peritoneal lesion, known as parametritis. By this route of invasion, upwards through the lymphatics, the infection naturally is first manifested in the sub-epithelial and deeper layers of the broad ligaments and the tubes, because these are in direct line with the lymphatics, and for this same reason tubal infection is attended by more general involvement of the surrounding structures than in gonorrhoeal infection. The lesion from which the infection was spread often is on one side or the other of the median line—entirely within the province of the right or left lymphatic system. It therefore follows that tubal infections, other than gonorrhoeal, are frequently unilateral.

Streptococcal infections of the tube lead up through the deeper layers, through the back door

so to speak, of these tissues and result in rapid destructive lesions of the same, whereas in gonococcal invasion, the epithelial-clad surfaces of the mucosa become involved first. The former infection travels very fast, is more broadly disseminated, and is much more virulent; therefore, it is the more serious of the two.

When infection occurs with parturition, where does the infection take place? The most common place ought to be labial, or more especially vaginal, lacerations, and it means that these are lesions in a zone which is very difficult to keep septic and clean. The reason we do not have more trouble than we do is not because the field is septic, nor because we try to clean it, so much as it is that nature prepares that field by the infiltration, edema, swelling and coffer-damming of the tissues preceding parturition. It prophylactically is cared for and offers a high grade of resistance, and therefore we rarely have infections of the cellular tissues around the vagina, or around a perineal laceration. This area is more richly supplied with lymphatics than any other part of the genital tract, and lacerations of the cervix admit of frequent infections and rapid transmission of the infective material. Where the cervical lymphatics go the infection goes, and in this case it is into the cellular tissues of the broad ligaments just the same as a cellulitis of the forearm from an infection of the finger.

Two principal types of infection may and do occur from cervix lacerations—strepto and staphylococcal—the former, as you know, being very virulent. The infection not only passes into the lymph spaces, but right along through these into the circulation, the patient dying from pyemia or septicemia from this infection foci in the cellular tissues of, and the sub-peritoneal tissues behind, the broad ligaments and the peritoneum. When one opens the peritoneum in that class of cases, why is there no pus in the peritoneum? Because the infection is not in the peritoneum but in the soggy tissues beneath it. It is a so-called “dry” peritonitis, resembling the redness and edema that occurs in the unbroken skin overlying a subcutaneous phlegmon.

When the infection is carried into the broad ligaments, with its many large veins, present during gestation, a phlebitis or a paraphlebitis may occur forming a thrombus, or even an embolus, and if these are carried into the general circulation, and they often are, death results rapidly and sometimes suddenly. If the infection is of the staphylococcal type, there is quite a difference in the case. These do not pass through the lymph spaces readily, they pass through slowly, often arrested in loco, and here is where the circumscribed abscesses occur and the patient has a pus collection, if you please, in the broad ligaments, or in the cellular tissues of the peritoneum surrounding.

The infection that occurs on or in the uterine

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surface is next in order, and the most common place is on the placental base. In this instance, where the micro-organism is not of the very virulent type and does not penetrate the thin membrane that separates the blood of the mother from the placenta, it may be transmitted through the lymphatics into the broad ligaments, causing pain, edema, swelling and much discomfort, and sometimes accompanied by chills, but never a septic emboli. Where the virulent micro-organisms do penetrate the thin membrane and infection in the vein ensues, then there is thrombo-phlebitis, septic emboli, septic infarcts, endocarditis and death.

By continuity of surface the next location of infections is on the mucosa of the tubes, but before speaking of this type I would like to repeat that one must keep in the forefront these two conditions in infections of the female, one ushered in with chills, high temperature, severe pain, great tenderness in the pelvis, and so forth, the pelvic cellulitis involving the broad ligaments, an abscess of the cellular tissues, not circumscribed, and very virulent; and the other of less intensity, circumscribed, with a lining and a definite collection of purulent material that can be removed. The two lesions are in different tissues also; this or these conditions must be differentiated in order to treat intelligently and successfully.

Now, to pass on to the tubal type, and we must admit that the old standby, the gonococcus, is the greatest destroyer of these organs. It is a far different picture, for, as has been stated, the infection primarily is in the mucosa of the tube, not in the interstitial tissues of the same. There is a closure of the uterine end, there are valves in there that hold the gonococci and debris, a stricture develops, same as in the male urethra, and a sealing of the fimbriated end occurs by its agglutination to whatever it comes into contact with, and you have a closed abscess with definite walls, a typical sac abscess. I am sure you can see why a cellular abscess should be drained, and tubal abscess removed.

I spoke of sealing of the tubes in these cases. If strepto or staphylococcic infection of the tubes does occur, which is not common, the edema and swelling of the mucosa takes place first at the neck, and then the fimbriated end also closes, with organic adhesions, but as soon as the acute inflammation subsides, the swelling disappears, and the tube often becomes patent again, pus escapes and the condition improves. This is not so, as a rule, with Neisserian infection, as will be stated later.

Gonorrhoeal salpingitis, on account of its great frequency, extreme tenacity, and the serious changes which it causes in the tubes, both structural and functional, is more productive of invalidism than any of the other diseases peculiar to the sex. It is nearly always secondary to an infection of the uterus or peritoneum, though the

latter is comparatively infrequent, but an inflamed appendix or a diseased area in the intestinal tract may cause the tube to become adherent, and subsequently rendered more easy to infect. Salpingitis is either acute or chronic, the simple catarrhal cases usually running a mild course, and are not followed, as a rule, by grave pelvic symptoms.

The symptoms of acute, purulent salpingitis very, very often cannot be separated from those dependent upon an acute septic endometritis, and the local peritonitis which may accompany the infection; in other words, there are no chief train of symptoms which point positively to an extension of the disease to the tubes during an acute attack of septic puerperal endometritis. In describing the latter and its symptoms, we must recognize the fact that we have said nearly all there is to be said about the former. The microscope is our chief aid, coupled with a true history of the case.

In the chronic type of cases the mucus membrane is hypertrophied and congested, and the tubal secretions are increased in amount. In the beginning of the disease the pus is always septic, and contains pathogenic germs besides; later on the micro-organisms may disappear and the pus then often is found to be sterile. If the tube remains patulous the secretions may drain through the uterus and out, or may drain into the pelvic cavity, in the latter being dammed up by adhesions, the tube becoming distended, and a hydrosalpinx forms. In instances blood formed by the inflammation becomes mixed with the secretions and in the same way a hematosalpinx is formed. If the tube remains closed, which it does in a large majority of cases, the well known "pus tube" results, called pyosalpinx, with its attendant adhesions and peculiar masses, often puzzling to the operator. Once a tube becomes closed with a Neisserian infection and a stricture is formed, it always remains closed. The principal cause of sterility in these cases is the result. Most women so infected are sterile.

The tubal swelling may vary in size from one's thumb to a fetal head. As a rule they are smaller.

A pyosalpinx is always adherent to the surrounding tissues and in most cases is found lower in the pelvis than high up. Adhesions of the tube caused by Neisserian infection as a rule, may be peeled more easily or separated from the structures to which they are adherent than in any other form of infection. If a pyosalpinx becomes adherent to the rectum, and it often does, the pus may be of a very foul odor, and dark in color. An old pyosalpinx that has lain dormant for a long time may become freshly infected, and cause the acute exacerbation so often seen, the infection in these cases many times coming from the rectum, bladder, intestines or uterus. There may be a torsion or twisting of the tube and rupture

of the same ensue. If an ovary becomes adherent to the tube, infection follows, the intervening tissues are destroyed, a tubo-ovarian abscess results, the ovary in these cases becoming infected through its coats or through a ruptured Graffian follicle. Fistulous openings may develop between the tubes and intestines in exactly the same way as just related, and many times these are found. Appendicitis following purulent salpingitis is more common than formerly supposed, due to adhesions of the tube to the viscus. All cases of gonorrhoeal salpingitis are accompanied by a greater or less degree of pelvic peritonitis. Pain in all cases is caused by tension on the peritoneal covering of the tubes, not to lesions of the structures themselves.

The symptoms of the chronic form of salpingitis are chills, fever, pain, dysmenorrhoea, menorrhagia, amenorrhoea, sterility and the general symptoms of pelvic distress. I am not going to discuss these, but will say that there are two other lesions of great import that must be differentiated, always, these being appendicitis and extra-uterine pregnancy; there are other lesions of the uterine adnexa, of course, but these two must be diagnosed or eliminated, as, in my opinion, they are both immediately operative.

Referring to the acute form of salpingitis, there are two very distinguishing features which characterize all cases of this type. One is the abdomen as shown by palpation; the other is the condition of the sides of the pelvis by bi-manual examination. The abdomen is very characteristic. The area just above the pubes, such as can be covered by the hand laid transversely across it, is uniformly tender and rigid, while the abdomen above the umbilicus is very much less tender and rigid, except in extreme cases. Now, this area in the lower abdomen corresponds to the well defined limits of the local peritonitis which characterizes the disease. Vaginal examination usually reveals tender masses, both boggy and soggy, but very tender, in the sides and back of the pelvis, in which case the diagnosis is practically obvious.

Careful inspection of the external genitals is of great importance. The history, general appearance and social standing are also important but often misleading. The complement fixation test has been used a great deal by some, as a valuable adjunct, but it is usually of no dependence until after the third or fourth week of an attack of gonorrhoea. Therefore, a Bartholinitis or inflammation of Skene's glands, a purulent discharge showing the gonococcus, and the above tenderness per vaginum, and peculiar rigidity and tenderness of the low area referred to are pathognomonic of gonorrhoeal salpingitis.

These patients look haggard, worn, are often irritable and hysteric, and in younger females the bloom of youth is lost and they appear prematurely old. Then there may be general debility, loss of appetite, gastro-intestinal disturbance, con-

stipation and often the sacral backache is severe.

The prognosis of this condition must at all times be guarded. As the lesion is usually sub-acute or chronic when we see them, there is, as a rule, no immediate danger to life, but there may be a great deal of suffering and distress. On the other hand, a streptococcus infection is very active from the start and is always a source of great danger.

Both types cause permanent damage to the tissues directly affected, as well as sterility, adhesions and chronic invalidism, and we must act wisely and promptly in these terrors of the female pelvis, either radically as the necessity demands, or conservatively, as the case may be, depending entirely upon the type of infection and the extent of the same.

The treatment of salpingitis is classed under two heads, acute and chronic cases.

Acute cases are treated according to the diagnosis of the condition. Frequent hot vaginal douches, complete rest, in bed, and hot or cold applications to the abdomen low down for the relief of pain, quiet the peristaltic action of the bowels, though this depends upon the amount of peritonitis present, which is usually limited, and in that case it is probably better to promote catharsis or use enemas. The leucocyte count is an excellent guide to the progress or subsidence of the disease. The aniline dyes may be used, such as mercurochrome or the acriflavine preparations. If the attack be the first one and subsides, leaving little evidence of the disease, it is best not to operate, but to keep the patient under observation. Other acute attacks may occur, and in my experience they are the rule, then the treatment is still expectant, but with less conservatism, and operation is deferred only until the more acute symptoms subside. As the tubal condition is beyond the reach of local measures, we should wait and rely on nature to wall off, to throw out plastic lymph around this lesion, and so limit the spread of the disease.

One of three things usually occurs in acute cases. First, either the tubal inflammation subsides and the oviduct returns to a state of quiescence and much reduced in size; second, the lesion passes into the chronic stage or form; and third, grave pelvic conditions arise which threaten the life of the patient.

The occurrence of general peritonitis is an indication for immediate radical measures, usually operative, though the Ochsner plan may be tried, and many a severe case has been tided over a critical period by such treatment. Any operation for general peritonitis should be performed for that condition, not for the tubal lesions at that time. A large pyosalpinx felt through the vaginal vault may be evacuated through such channel and the tubes removed later. The same treatment applies to an abscess of the broad ligaments.

The treatment of the chronic form of salpingitis is in my opinion purely surgical, that is, to effect a complete cure.

The point I desire to stress in salpingitis cases is this: Abdominal section is contra-indicated in acute purulent infections, unless peritonitis develops, because these patients are more or less toxic, sometimes profoundly so, and they are unable to withstand operative interference well.

To sum up, then, wait until the natural sequences of these infective processes have developed, the walling off and coffer-damming of the immediate surrounding tissues, and then operate. The history is very important in all cases. The microscope is our chief ally to distinguish the type of infection, and nature is our best assistant, if we will but aid and abet her efforts. Many medical lines of treatment have been advocated, but I am not considering these lesions as a medical entity at all, especially after damage has been done to these tissues. The Rubin inflation test for tubal patency has been given a trial in some sections and good benefits are ascribed to it. The main points are the mode of transmission, the action of a few of the micro-organisms, and the difference in action between the gonorrhoeal and the more virulent strepto and staphylococcal types. Remember the disturbances in remote parts of the body, the focal infection from these diseased tubes.

Lastly, please do not understand me as meaning that these cases must never be operated on early. That must be decided in each and every case by the conditions. It is well to remember that the mortality tables are far too high in acute suppurative lesions following operation in these abdominal cases. Unhesitatingly request for counsel and advice in the obscure cases we so often see; a conservative viewpoint, barring complications, in operative measures; rest and quiet for the patient during acute attacks, with a removal of the diseased appendages at a later date, is the ideal treatment. I believe, today, for this preventable class of diseased females, once these generative organs are rendered useless and their function destroyed, just the same as we treat diseased and functionally useless tonsils, gall bladder or the appendix.

DISCUSSION

ELI S. JONES (Hammond): There are a few things which Dr. Strong brought out which I would like to emphasize. One is conservatism in operating on acute cases. I notice that some men, King, of Brooklyn, is one, say the sooner you go in the better for the patient. On the other hand, Polak and others take the opposite stand. In my limited experience I am in favor of the conservative plan. We do know that in gonorrhoeal infections particularly that the lining of the tube will regenerate itself after the subsidence of the infection, and that pregnancy does occur in many

cases following acute salpingitis. One thing I would like to mention is that in gonorrhoeal salpingitis, where pus is found in the tubes, after a time the pus becomes sterile. When operating on these cases, without rupture of the tube, it is often unnecessary to use drainage. The after results are sometimes better without drainage than with it. However, with streptococcus infection it has been demonstrated that streptococci may remain in the tube two or three or four years; if this pus gets into the abdominal cavity at the time of operation it may start a streptococcal peritonitis and the patient may die as a result.

As to the Rubin test, I have used it in something over fifty cases and like it very much. In one case of sterility using 120 mm. of pressure before air would go through, I was gratified later to find that the patient became pregnant. As a matter of diagnosis following salpingitis, it is a question whether the tubes are patent or not. I know of nothing quite as valuable and beneficial to the gynecologist as the patency test of Rubin. From a diagnostic standpoint there was some work done at Michael Reese Hospital not brought out by Dr. Strong. That is pneumoperitoneum for diagnostic purposes, and it has given some very excellent results from a diagnostic standpoint.

It is interesting to find the mode of transmission when you study the lymphatic system of the vagina and cervix. The gonococcus does not travel as much by the lymphatic system as it does by the ascending route, as compared with streptococcus.

W. H. WILLIAMS (Lebanon): I would like to urge conservatism in dealing with these cases. We must be very careful or we are going to get in too big a hurry to go into these cases and remove the pathology that we feel may be necessary to remove. In the first place, if we ascertain the source of infection then we will be well guided in our status thereafter.

One other viewpoint we ought not forget. I am quite sure that you who have been doing abdominal surgery long have noticed that it is remarkable how persistent is ovarian tissue to the invasion of any of these infections. If we are compelled to open one of these abdomens we should be very careful that we do not unnecessarily drag out the ovarian tissue. That can be left very advantageously to the patient. I believe that I have seen that done and I may have been guilty of it myself. The more of these cases I see and the more I operate the more careful I am not to obliterate the ovarian tissue that will be helpful to the patient. We must get away from the idea that because the tube has reached a point where it is worthless that it is not necessary to leave the ovary on that side. It is of value to the patient and should be left if possible.

A. S. JAEGER (Indianapolis): This subject of salpingitis is one which is very close to my heart. It has been my privilege to be in a position to see

many cases of salpingitis and acute and chronic pelvic inflammations. As a result thereof certain things have been hammered into me, from which I have naturally drawn fixed conclusions.

In the first place, I feel that some of us must have the courage to openly disagree with what most men say on this question of chronic salpingitis. Statistics can be juggled to prove anything one wishes to prove. All one has to do is to read them toward whatever angle one leans. I for one am tired of the statement that seventy-five per cent or more of chronic salpingitis cases are due to gonorrhoea *per se*. This, in my opinion, is not true, and the time has come when those of us who believe it is not true must, as I have said, have the courage to disagree with what has been taught by the older men in the past, and is still adhered to by many; some because they really believe it, and others because they are too indolent to investigate sufficiently to give them cause to change their opinions.

The percentage of chronic and even acute salpingitis due to gonorrhoea is sufficiently great to give us no cause for pride over progress made in treatment or eradication. But seventy-five per cent of salpingitises are not due to primary gonorrhoea, and it is an insult to the womanhood of America to let such statistics go unchallenged. Careful analysis of these cases will show you time and time again that the woman has suffered from pelvic discomfort, dysmenorrhoea, and so forth, from the time of her puberty. The only compromise can be that as a result of pre-existing abnormal conditions the gonococcus had a fertile field to work on; but even in numerous such cases I am convinced that there was a clear cut pelvic inflammation with or without prominent symptoms before the gonococcus invaded the part, if it ever did. If a woman does not develop gonorrhoea from her husband's disease within the first two years of marriage, I feel that she usually has immunized herself against the particular strains of gonococcus present in him when he married her. Of course this does not mean that the wife may not become infected through her husband from a new strain which he may have acquired after marriage. In my humble opinion many cases of salpingitis, or so-called pelvic inflammatory disease, are not acquired in the usual manner in which infection and inflammation occurs, but they are the result of manipulation and instrumentation from "local treatment," abortion and at child birth.

Permit me also to call to your attention that the colon bacillus causes a most distressing inflammation when it has migrated from its normal habitat; that many other non-specific organisms may and do cause tubal, ovarian or more generalized pelvic inflammatory disease; that most present-day authorities believe that ten or more per cent of salpingitis is due to tuberculosis, the vast majority only diagnosed as such by chance, most

of the cases being clinically and at operation diagnosed as gonorrhoeal; and that it is not without the bounds of rational reasoning to believe that more than a few diagnoses of gonorrhoea are based on the opinions of poor microscopists.

I heartily endorse what has been said in regard to non-operative interference in acute pelvic inflammatory disease. Abdominal operation in such cases makes for a high morbidity and mortality rate. If surgery is at all indicated to tide over an emergency, drainage per vagina, colpotomy, usually fills the need without the danger of generalizing the abdominal infection.

H. C. WADSWORTH (Washington): It is my fortune to work in a small town where I know nearly everybody's history. In at least sixty to seventy per cent of the cases of chronic salpingitis as they come in day after day and week after week the history points toward a Neisserian infection.

G. LINK (Indianapolis): The matter of the pathology and surgery of the female pelvic organs was very well worked out some twenty odd years ago, and I did not think it was necessary to say anything in addition to this complete paper if we stayed on the right track, but it has become my duty to differ with two of my very good friends, Dr. Williams and Dr. Jaeger. In the first place, speaking of the etiology of salpingitis, I think that most of the severe pelvic infections are gonorrhoeal in origin. In the communities where gonorrhoea is not prevalent we do not have pelvic infections as we formerly did. I think the gonococcus still stands indicted in spite of Dr. Jaeger's attitude and in spite of the work he has done, because I know he has done a lot of work on this subject.

Dr. Williams pleaded for the ovary. Unfortunately whenever the female apparatus gets infected we have storm producing organs and Joseph Price told us twenty years ago to take them out. I still think chronically infected ovaries should be removed. The amount you leave in will determine the amount of trouble the patient has. I am in favor of radical pelvic surgery for pelvic infection.

THOMAS J. STRONG (closing): I would like to say that what Dr. Jones has said about the pus being sterile in gonorrhoeal cases I believe is true. Remember Lawson Tait used to operate with impunity in the abdomen in these cases. He literally washed his hands in pus and said the pus was sterile and he got no infections. Gonorrhoeal pus after a while is sterile.

Regarding the Rubin test, I do not see how we are going to inflate a tube if the tube ends are sealed. In gonorrhoeal salpingitis you generally have sealed tubes. It is my experience that they are sealed pretty tight. I have had no experience at all with pneumoperitoneum.

Dr. Williams spoke of the husband as the source of infection. Absolutely true in many cases.

Dr. Jaeger claimed it is an insult to women. It is an insult to the woman in one way; it is not her fault, but it is a deplorable situation. I do know from my own personal experience that a great many of these cases are caused by gonorrhoeal infection, and I believe it is over sixty per cent.

Regarding statistics, what would be done by any of us if we did not have records from the great clinics?

RECONSTRUCTION WORK IN MIDDLE LIFE*

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MARTINSVILLE

The subject I have selected as a text for this paper is one of paramount importance to the class of medical men whose lot it is to guide men and women through their most useful period, or that period from forty to sixty years of age. It is during these years that proper methods of care and treatment are so essential to the patient that he cannot afford to be without the advice and supervision of his physician. Every physician should put forth his best efforts to so teach the middle aged patient that the fads and fancies of the cults, so detrimental to his welfare, will be relegated to the junk heap of ignorance and charlatanism.

Reconstruction in middle life means that we must teach our patients proper methods of eating and bodily care, proper hours of rest, both to body and mind, the significance of early symptoms of disease, and the importance of regular examination of the vital organs of the body. Our duty to our patients is to make a correct diagnosis of pathologic changes and by so doing prevent or arrest the processes of destruction early. We should pay close attention to what may seem only trivial symptoms, such as nerve cries or transient pains that the patient complains of and which many times are passed by with a prescription for a few doses of medicine for pain and the patient dismissed without making a thorough examination into the cause of the trouble. After a little while the patient who has received superficial and unsatisfactory attention is induced to try some drugless doctor who adjusts and manipulates until finally the patient in desperation seeks aid of someone who takes the time to make a thorough physical and laboratory examination and finds the real cause of the painful symptoms complained of and tries to remove the disease producing foci of infection. Many times this is deferred until serious pathologic changes have occurred and it takes months of treatment to accomplish the results that might have been secured from a little intelligent attention at the proper time. I am glad to note at this period of medical advancement that, with

our modern methods of scientific laboratory examinations, preceded by correct case histories and proper physical examinations, few people who really care for proper medical aid need to be without correct diagnoses and proper treatment. During middle life we note the beginning of disease processes which, if recognized early and the cause removed, adds many years to the lives of our patients. I am confronted daily with the problems of how to prolong the lives of people who are rushing into degeneracy and old age by the time they are fifty, and it is only by correct diagnosis and conscientious tactful advice that I am enabled to guide these patients through the most critical period of their lives. Many are the victims of pernicious habits, of over indulgence in foods unsuited for their occupations, eaten hurriedly while the brain is excited and no rest either to body or mind. Here is work of reconstruction which, if properly carried out and systematically outlined, will enable our victim to add some valuable years to his life.

Volumes have been written on the diseases of old age and the best method of treating the aged, but the best method of treating old age is to teach people how to live in middle life. In fact, it should be commenced in infancy. If the life insurance companies from purely a monetary standpoint can pay good prices for annual examinations of their policyholders, and some of them claim they have made 200% on the investment, how can a man past forty-five years of age afford not to have a complete inventory of his health made at least once each year. Thousands of people in business are very scrupulous about an inventory of their business each six months, but never pay any attention to an inventory of the source of the business, *their health*.

It is very important that the patient of middle life should have frequent and careful examinations and study, that many of the evidences of disease be detected early and that the first indications of wear and tear, or the signs suggestive of injurious effects of previous disease or injury, may be properly worked out. At this period of life our patient begins to feel tired, has frequent attacks of so-called rheumatism, neuritis, lumbago, myalgia, arthritis, stomach trouble, recurring appendicitis, gall bladder infection, etc. Here we need to make a careful physical examination. Look at and squeeze his tonsils, take a culture of tooth root infection, explore his sinuses. In this region, between the chin and eyebrow, I find the cause of a large per cent of troubles that are the cause of early developing degenerative changes.

The examination of patients who present themselves for a diagnosis must be made carefully, as most persons presenting themselves have made up their minds that the clinician should pay attention only to the symptoms that they are interested in, and do not like to have too much attention given

*Presented before the Seventh Councilor District Medical Association, Martinsville, Ind.

family and personal history. I find many cases where the history properly taken, tabulated and recorded is the key-note to success in making up a correct diagnosis. The laboratory examinations and treatment are recorded, and we depend on our records to guide us from day to day in the care of these patients. We are dealing with people who are away from home, and who expect prompt results. Many of the patients have been in the hands of all kinds of irregular practitioners whom they have left. They are skeptical of scientific medicine and real doctors, and it is necessary to overcome their skepticism and prejudice. They should be taught that their methods of life must be changed. We try to convince them that real scientific work is the only foundation on which to hope for success. When these patients co-operate and we are given an opportunity to institute appropriate treatment they soon see that a correct diagnosis followed by a combination of rest, diet, hydrotherapy, physio-therapy and medication, following removal of focal infection,—does wonders for them. Then we have their highest esteem and our work is a pleasure. Thus this reconstruction work goes on and our patients go back to their family doctor with more faith in scientific medicine, and look to him for guidance through the years that follow.

In working out our diagnoses we try to associate the endocrine secretions in their relation to the case in hand. This complete group of ductless glands are studied individually and collectively, to determine the particular type of endocrine disfunction we have to deal with in each case. It is important to know whether our patient is suffering from hyperthyroidism or hypothyroidism. The physiological reciprocal relation of the ductless glands is frequently shown clinically. The fact must be recognized that diseases affect several ductless glands simultaneously, producing increased function, or to simultaneous diminution of function, or to increased function in some and decreased function in others. Loss of thyroid is followed by cretinism in the young and myxedema in the adult; loss of parathyroids induces depression, tetany and death in a few days in animals; loss of the pancreas leads to diabetes and death; loss of testes produces sexual infantilism in the young, and loss of sex urge and sexual function with gradual atrophy of most of the secondary sex characters in the male adult, and loss of the ovaries have a similar effect on the female. Hypoadrenia, with its concomitant symptoms is not to be overlooked. That the infections play an important role in the production of this change of function in the adrenals I verily believe. I have treated a few cases where the symptom complex was dependent on adrenal disfunction, and the foci of infection finally was located in the tonsils. I also have noted many cases in which thyroid detoxication cleared up and the glands assumed normal pro-

portions after removing infected tonsils. I have had under treatment two cases of thyroiditis, with recurring acute articular rheumatism: one had highly inflamed pus tonsils, the other had a severe attack of lagrippe followed by thyroid enlargement and rheumatism. I believe that many cases of thyroid disturbance are due to remote acute infections. This field of research work is just beginning, and I am looking forward for a period of work and proof of these statements. Time will not permit more mention of this very important subject.

A large number of the deaths that occur between the ages of forty-five and sixty years are from causes that can be deferred: heart disease, Bright's disease, and apoplexy. The deaths from these diseases can be deferred by early and regular annual examinations and the institution of correct treatment. Many occupational diseases can be corrected by proper advice from the physician. Diseases influenced by certain occupations are very common, such as asthma, bronchitis, tuberculosis, Bright's disease, organic heart disease, circulatory hypertention, etc. Occupational health complaints which are not really diseases are numerous. Occupational diseases are sure to occupy the time and attention of physicians treating any considerable number of industrial workers, as sick benefit companies are very exacting in their demands on the physician who represents them.

The influence of age in the production of certain disease conditions is a well recognized principle of general pathology. We see the influence of age on the circulatory system among the first symptoms manifesting themselves on the patients in middle life. After forty years, when these arterial changes are commencing, we begin to recognize the beginning of structural changes in the body, and many functional symptoms manifest themselves. That arterial changes should take place during middle life is not to be wondered at when we remember that the blood-vessels never obtain rest. Not only do these vessels never rest, but the blood passes through the arteries at a speed of ten inches per second, and the aorta and great vessels are subjected to a distending force of twenty-five pounds to the square inch sixty to eighty times per minute. When we recognize the importance of proper rest to the patient early in this process of destruction, we may add years to their lives. Too frequently arterial degeneration is not recognized until the symptoms of sclerosis are well marked and the time of regeneration has passed. Arterio-sclerosis is essentially a disease commencing in middle life and should be recognized early. Whatever the contributing factor may be, it should be sought out and removed if possible.

As the scope of this paper only permits of mere mention of the diseases we meet in our reconstruction work, I will mention only the more common

ones and stress the importance of their early recognition.

The importance of proper classification of heart diseases cannot be overestimated. That a large per cent of heart diseases have their origin in early life is common knowledge. Many are the cases that are brought to light only in middle life. That thousands of cardiacs may have life prolonged by proper diagnosis and treatment cannot be doubted. The recognition of the common focal infections as a cause of heart disease is not disputed, and the removal of these infections has been of vast importance to the profession and public. Also the proper after-care of these patients, with graduated exercises and hydrotherapeutic treatments, is a means of prolonging life not to be ignored, no matter whether we are dealing with myocarditis, pericarditis, endocarditis, valvular lesions, auricular fibrillation, vagus pressure, or dilated heart, or aorta. They all demand proper knowledge of differential diagnosis, and treatment suitable to each individual case. Institutional treatment of heart diseases long ago has been recognized as ideal, and thousands of cardiacs have had a period of years added to their lives by such care and treatment. Educating the patient how to live, how to eat, how to rest and exercise, is a part of correct institutional treatment. In middle age compensation is not so easily maintained as in youth. Hence the importance of more care of the patient.

A large variety of symptoms are present in renal disease, each group significant of its own peculiar pathology. Many are the patients during middle life who are passing into some form of kidney disease whose early diagnosis will add years of useful life to them. The common habit of basing our diagnosis on urinary analysis in these renal diseases is insufficient. We are depending on all the data in a complete examination, and not narrowing down to only a part of the information. The absence of albumen in the urine is not sufficient evidence to pass the case as having sound kidneys. In all cases of severe headache, dyspnea, edema, great weakness, disturbed vision, convulsions, vomiting, abdominal pain, dizziness and similar vague symptoms, we make a complete urinalysis and renal function test. All symptoms of kidney disease can be divided into those of the disease itself and those resulting from or associated with a renal insufficiency due to the renal damage. The group of symptoms not resulting from kidney insufficiency is rather small, and the more permeability tests we make the more we are convinced of this truth. We have carefully examined specimens from about 2,400 patients during the past year and found many of these patients with extremely low permeability. This test was the most accurate guide we found to successful treatment in many of these cases. In making our renal function tests we use phenol-sulphon-phthalein. Normally we expect to re-

cover sixty to eighty per cent of it in two hours. In cases with circulatory failure and edema we use the same dose intravenously and get our specimens in one-half an hour and one hour periods after injection. In order to arrive at proper conclusions this test should be made carefully and the patient with urine retention must be catheterized or erroneous conclusions will be arrived at. In the beginning of the test have patient urinate each ten minutes until the dye begins to appear. Then note time and base test from that time forward. This test is made for estimation of renal function only, and not as a means of making a diagnosis of the kind of kidney lesion present. The recommendation of a renal function test is made when we continually find a urine with a very low specific gravity and other outstanding symptoms of kidney disease. Renal function tests are a guide to the maintenance of the normal level of the composition of the circulating blood. The kidney serves a double role, first, ridding the blood of any abnormal substance, or an abnormal accumulation of a normal constituent; second, the preservation to the body of the normal constituents of the body fluids at or near their normal levels. All the substances excreted or barred from excretion by the kidney are presented to it by the blood already formed, with the one exception of hippuric acid. Therefore, the kidney acts as a regulatory mechanism, and in its action responds with amazing sensitiveness to altered blood composition and altered blood flow. Of the substances excreted by the kidney, we have two groups: First, those that are of no further use to the body, urea, uric acid, ammonia, and substances foreign to the organism, such as dyes, medicines, etc., excrementitious substances; second, the group including salt, glucose and perhaps water, still capable of being utilized by the body, and a certain content of them may be retained. Therefore the kidney acts differently toward these two groups. It continues to rid the body of the first group so long as any remains in the circulating blood, and at a rate about in proportion to the amount in the blood. Of the second group the kidney only commences to excrete these substances when their content in the blood has exceeded the normal level. It is this fundamental difference in kidney reaction which has led to the application of the term "threshold substances". Whatever determines the normal threshold in health, it is certain that it can be greatly altered by disease of the kidney, and perhaps by disturbance of the endocrine system or body chemistry. In the case of kidney disease there will occur no change in the composition of the blood from this cause so long as kidney compensation exists. Kidney disease soon brings about renal insufficiency. Therefore, the best means we have worked out to date is the test with dye stuff, and sulphon-phenol-phthalein seems to be the test of choice. The subject of renal permeability is of too much magnitude to go deeper

into details here, but I want to stress the importance of its role in making diagnosis in middle life diseases.

Our hypertension cases that present themselves daily for their varying symptom-complex cannot be turned aside, neither can we expect to treat them successfully without working out the cause of their hypertension. Increase in blood pressure often is associated with definite interference with renal function of more than transitory duration. I can mention only the kidney lesions that are accompanied by high blood pressure. It develops in dropsy cases as well as in those with marked nitrogen retention, and it may be present in acute nephritis. In chronic nephritis it is very often present with a systolic reading from 200 to 260, and its harmful results are here most constantly seen. Sometimes the pressure seems to bear a relation to the retention of salt, at others to the development of uremia. We do not always know which factor is producing the high blood pressure. Renal insufficiency does not exist long without increased blood pressure, and high blood pressure does not exist long without arterial changes and hypertrophy of the heart. Kidneys, arteries, and heart are so closely related that it is not possible to separate them very widely in our study of the cause of diseases affecting either of them. The failure of the kidney to produce concentrated urine when the fluids of the body are diminished is an evidence that the kidney function is not normal.

In the examination of 2,400 cases for diagnosis during the past year, I have found 963 cases of rheumatism, arthritis, neuritis and lumbago. Of these 2,400 patients, 482 came directly to consult me for stomach and intestinal disturbances. Of the 2,400 patients, 193 had distinct heart lesions, and twenty-nine of this number had well marked arrhythmia and thirty-four of them had combined respiratory trouble. Of the 2,400 patients, 119 had proven kidney lesions. We found septic teeth in 318 and septic tonsils in 403 of the 2,400 cases. We removed the tonsils of 156 of these patients. Of the 2,400 patients, sixty had infected sinuses. We had sinus operations in four cases. We found eye infections in twenty-six of 2,400 cases, and forty ear infections. We made renal function tests in 120 of these 2,400 cases. Of the 2,400 patients examined 180 had a low blood count. Out of 250 Wassermann tests made we had sixty-four positive, and 186 negative. Out of 137 tubercular tests made, seventy were positive and sixty-seven negative, (made with Tubercumet). Out of seventy-seven smears for G. C., forty-one were positive and thirty-six negative. Out of 100 complement fixation tests for G. C., we had fifty-two positive and forty-eight negative. We had 160 cases with arterio-sclerosis, 119 had anemia, twenty-one cases had curvature of the spine. We removed the teeth of sixty-seven patients. We had thirty diabetics. We made

a diagnosis of cancer in sixteen cases. Twelve cases had skin diseases. We had twenty-two hyperthyroidism cases. We made malaria tests in seventeen cases. We made complete laboratory urinalyses from one to a dozen times on the 2,400 cases. We had forty borderline mental cases. We made liver function tests in eleven cases. We made 150 x-ray examinations. We found seven tumors not classified. We made basal metabolism tests on twenty-five patients. In thirty cases we found liver disease. We had one case of amebic dysentery and we found the ameba coli; one case of sprue, one case of bulbar paralysis, two cases of idiopathic atrophic sclerosis, one case of Duchenne disease with muscular dystrophia, one case of enormously enlarged spleen, spleno-medullary leukemia, two cases of Vincent's angina. This is only a partial report of the work done in diagnosis, as all of the minor conditions have been omitted from this report. Of course many of the examinations revealed two or more disease processes in one individual.

My observation and experience teaches me that a large per cent of the diseases of middle life are dependent on focal infection, and that the seat of this infection is first, tonsils; second, teeth; third, intestinal tract; fourth, sinuses; fifth, gall bladder. My belief is that a large number of these causes are overlooked in the diagnoses of diseases in middle life. I also believe that much of the pathology we find in these cases is induced by mycotic infection from the foci mentioned. I am convinced that these families of strepto-staphylo-diplo cocci change their virulence and have a selective affinity for certain parts of the anatomy at different times and under different conditions. I also wish it understood that in the examination of the cases I have mentioned that all other means of working out the cause of disease were, in most instances, exhausted before I allowed myself to examine the part of the anatomy between the chin and the eyebrows, as I did not want to be biased in my opinion. Many of these focal infections are associated with lues, tuberculosis, and metabolic disturbances. In these instances they were treated as only a part of the causative factor of the case. I do not want to be understood as an extremist, but am convinced and have abundant clinical proof, that no patient carrying any considerable amount of virulent pus can enjoy health. If a septic appendix, gall bladder, thyroid, lymphatic glands, etc., demand surgery, (which they do), why not tonsils, teeth, and undrained sinuses.

My final plea is for better diagnosis, using every means at our command to prove and remove, if possible, the cause of the disease condition, not losing sight of the resistance and individuality of the patient under supervision.

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Devoted to the Interests of the Medical Profession of Indiana

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EDITORIALS

DIPHTHERIA PREVENTION

At the present time sufficient evidence has accumulated to justify the belief that diphtheria may be eradicated from this country. To accomplish this desirable end all that is necessary is to bring the various states, through their boards of health aided by the cooperation of the medical profession, into a combination for the purpose of creating a nation-wide plan of immunizing all children with toxin antitoxin. A good beginning has been made by New York state, where the State Department of Health, the State Department of Education, the New York State Medical Society, the State Tuberculosis and Public Health Committee, and the Metropolitan Life Insurance Company have combined in an effort to bring about the eradication of diphtheria in New York state. At a recent meeting of these agencies attention was called to the work already done in the control of diphtheria, and it was pointed out that during the years 1885 to 1895, ninety-five out of every one hundred thousand of the population of New York state died of diphtheria. During the next ten years, following the introduction of antitoxin in the treatment of the disease, the death rate was cut in half. Again there was a similar reduction in the ten years from 1905 to 1915. In 1915 the use of toxin antitoxin was begun, and in the following ten years the death rate had been but 15.5 per one hundred thousand. It was pointed out by several of the speakers that there is no question but that deaths from diphtheria can be eliminated completely if all young children are immunized to the disease with toxin antitoxin, and that all that is necessary to eradicate diphtheria is a sufficient supply of toxin antitoxin, a sufficient number of physicians willing to administer it, and enough parents willing to have their children immunized. As a specific instance of the value of this immunization through toxin antitoxin it was cited that in the city of Buffalo in 1920 there were 3,100 cases of diphtheria, with 298 deaths. During the following year immunization was commenced, and in that year there were only 519 cases and 47 deaths. This result was accomplished without the general adoption of the preventive measure, and it is fair to assume that through a practically universal use of the preventive treatment diphtheria would have been eradicated completely from the

city of Buffalo. It was emphasized that the administration of toxin antitoxin is an extremely easy procedure, and that it is harmless. As might be supposed, the campaign was condemned by members of the League for Medical Freedom, and the antimetrical organizations of every kind, and they attempted to discredit the work by fallacious reports concerning both the efficacy and the safety of toxin antitoxin immunization, and much emphasis was placed upon the fact that a few fatalities occurred in Texas several days subsequent to the administration of toxin antitoxin, due to the use of one particular lot of antitoxin that was not subjected to certain tests which today invariably are used. It is practically impossible for such an accident ever to be repeated in this country. These opponents to progressive medicine seem to lose sight of the fact that not only has toxin antitoxin now been used in hundreds of thousands of cases without harmful effects, but wherever used it has produced almost one hundred percent immunity among those upon whom it has been used, and that in the community at large in which it has been used the mortality has been decidedly reduced over even the great reduction accomplished since the advent of antitoxin. With a record of such splendid results in so many localities where toxin antitoxin immunization has been extensively practiced there is ample reason for believing that if a combined effort is put forth in having immunization more generally employed we can practically eradicate diphtheria from this country. We sincerely hope that Indiana will take up the work, independently if necessary, and that it will receive the encouragement and support of the State Board of Health, and municipal boards of education, and the medical profession of Indiana.

MEDICAL ADVICE CONCERNING REDUCING

The present vogue among women to become thin and willowy in order to comply with fashion's dictates has been attended with so many evil results in the way of impaired health that a plea has been made to medical men to discuss the subject from the health standpoint. Accordingly the question of whether women should reduce and how, if they are to retain their health, was debated in New York on February 22 at a gathering of physicians, dietitians and statisticians at the New York Academy of Medicine, under the direction of the American Medical Association. The meeting really was called at the request of Mrs. William Brown Meloney, editor of the *Delineator*, who asked medical authorities to provide some age, weight and height tables to guide women in determining at what weight they would be healthiest, and possibly to suggest some means by which the question of how to reduce might be answered. In the discussion that resulted one of the speakers said that he was told by Poiret, the French dressmaker, that American women were almost the only women in the world who wanted to look like barber poles. Other

speakers called attention to the evil effects of improper dieting and the use of drugs in an effort to reduce. One of the serious results of reducing is in the production of sterility. Over-exercise, rolling machines, starvation diet, going without water, the use of thyroid, iodine, and smoking to excess all were condemned as injurious. The untutored person frequently eliminates vitamins from his food by doing without cream, butter and other foods, thus bringing about an unbalanced diet that is very harmful and may lead to a pathological condition. The consensus of opinion was that no reducing should be undertaken except under the advice of a competent physician, and that all women need a well-balanced ration but that there would be less tendency to accumulation of fat if the well-balanced ration is limited in amount and with the requisite amount of sleep, and with temperate habits. The American women were further admonished that it is better to be reasonably fat and healthy than to be thin and sickly.

FEEES FOR PROFESSIONAL SERVICES IN HOSPITALS SUPPORTED BY TAXATION

As we have pointed out in earlier numbers of *THE JOURNAL*, the county hospital, financed and controlled by the county commissioners and supported at public expense, is very apt to be a thorn in the flesh of the medical profession, and evidence of it already is manifested in some counties of the state. In the first place, not a few of these county hospitals are served by doctors without pay, though everyone else connected with such institutions receives compensation. There is no objection to this as long as the service is rendered to the indigent, but now comes a plea from some counties that a hospital maintained by taxation should offer free service to the taxpayers, and the doctors are expected to supply the service either gratuitously or at beggarly fees. In those counties where salaries are paid, the salaries are small though the volume of work may be large. Even the question of care of the indigent is one in which there is no consideration for the medical man, though everyone else is paid. The advantages of having a well-equipped hospital in every county cannot be denied, but an effort should be made to run these hospitals just as any other hospitals are run, with the doctors allowed minimum fees for attendance upon charitable cases, and the right to charge usual fees for any and all other patients taken to the hospital. No other basis will be fair to a deserving and self-respecting medical profession. The indigent deserve care at public expense, but there is no more reason why doctors should render gratuitous services to the indigent, who in reality are a community charge, than that grocery keepers should supply food gratuitously to the indigent. In other words, everyone should share through taxation the support of the indigent, and no one should be expected to furnish more than his share in that care, the doctor included.

GOVERNMENT APPROVAL OF CHIROPRACTIC

It was bad enough to have the government temporarily recognize chiropractic in its vocational training for ex-soldiers, but it has been worse for the government to recognize certain so-called chiropractic schools as accredited institutions for immigrant students who may be admitted to this country free. In an earlier number of *THE JOURNAL* we called attention to an announcement in the daily papers that the Ross College of Chiropractic, of Fort Wayne, has been approved by the government as a school for immigrant students. Upon investigation we find that the immigration act of 1924 provides in part that an immigrant who is a bonafide student, of at least fifteen years of age, and who seeks to enter the United States for the purpose of studying at an accredited school, college, academy, seminary or university, particularly designated by him, and approved by the Secretary of Labor, may be admitted to the United States. It also was discovered that eleven chiropractic schools had taken advantage of this feature of the law and been approved by the Secretary of Labor. It also was discovered that an approved school within the meaning of the Act is one that has received the approval of the Secretary of Labor, and to receive this approval the Ross College of Chiropractic in a petition stated that the college required a high school graduation or equivalent for admission, and gave complete training for the practice of chiropractic in the subjects of anatomy, physiology, pathology, hygiene and sanitation, obstetrics, gynecology, bacteriology, chemistry and chiropractic principles and practice, three or four years being necessary to complete the course, with a twelve month year. Accordingly, approval was bestowed upon the college on July 1, 1925. Even the wildest stretch of imagination does not permit us to believe that the petition cites facts concerning either requirements or the character and amount of training given at the Ross College of Chiropractic, and it develops that no machinery seems to have been at the disposal of the Secretary of Labor for the inspection of any of the so-called chiropractic colleges to verify the statements in the petitions for approval, nor does it seem to have any machinery yet whereby to supervise the activities of the approved institutions to determine whether they do or do not comply with the terms on which they are approved. Obviously the Secretary of Labor ought to have some adequate organization to investigate schools, colleges, academies, seminaries and universities before he approves them, and to keep them under supervision so long as they are approved. Legislation governing this whole question is needed, though it is very evident that an effort to secure such legislation would meet with strong resistance on the part of the chiropractic institutions that have profited by the lack of safeguards in the existing law governing the admission of immigrant students.

Furthermore, it is very evident that when the Immigration Act of 1924 was up for consideration the matter of preventing the abuse of the law by renegade institutions of any kind was given no consideration. This leads us to suggest that the American Medical Association, representing the reputable medical men of the United States, ought to have a legal representative stationed in Washington whose duty would be to study and analyze all proposed legislation with a view to discovering any jokers or omissions that would make it possible for such a travesty of justice as has occurred in accrediting chiropractic schools for immigrant students. Furthermore, the state medical associations would be wise if they, too, had legal representatives stationed at the various state capitals to analyze proposed state legislation which in any way relates to medical study or practice, or to public health matters, so that the medical profession may be informed and to bring its influence to bear to prevent unwise legislation.

CHIROPRACTIC NOT HARMLESS

A decision by the supreme court of Illinois relating to chiropractic has brought out a new answer to the claims of chiropractors and practitioners of similar methods. The defendants in the case argued that practice of chiropractic was "a useful and harmless calling which cannot be regulated by the state." This claim was declared to be so entirely without merit that any discussion of it was unnecessary. The decision went on to state, however, that "if a chiropractor can, by manipulation, move a dislocated vertebra so that the pressure on a nerve can be relieved and paralysis cured, he can by the same process dislocate a vertebra and cause a paralyzed condition. Any method of treating human ailments which, when practiced skilfully, can restore a diseased human body to health is capable of doing great harm when practiced without care or skill. A method of treating human ailments cannot be both useful and harmless. If it is sufficiently efficacious to be useful, it is at the same time capable of producing harmful results." The chiropractor, no less than the physician or anyone else who is to treat the sick, needs to have a sufficient training in the fundamentals of medicine so that he will know at least when his manipulation may be harmful.—*Jour. A. M. A.*, Feb. 13, 1926.

OUR mortality rate continues to be disturbed by the increasing number of automobile accidents. The death rate from this type of accidents has increased fifty percent since 1920, and has more than trebled since 1915, and is now seven times as high as it was in 1911. This condition of affairs should bring us to a realization that we ought to have more stringent regulations concerning automobile traffic, and that there ought to be greater safeguards placed around pedestrians.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

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Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve you.

A MEMBER of the Indiana State Medical Association is receiving publicity through almost a column in the reading pages of the *Crawfordsville Review*, by advertising a cancer remedy which is recommended as producing miraculous results. The question arises as to just what the county medical society will do with a member who openly practices the rankest kind of quackery.

WE earnestly urge the members of every county medical society in Indiana to preserve and make good use of the copies of the new manual of suggestions for the conduct of periodic examination of the apparently healthy, as prepared by the American Medical Association, that will be supplied gratuitously by the Indiana State Medical Association.

A TYPICAL Texas entertainment is planned for those who attend the Dallas session of the American Medical Association. A barbecue will be tendered by Dr. John H. Dean for all those in attendance, including guests and exhibitors. The calves for this barbecue were picked out last June and are undergoing careful attention in feeding in order to have them in prime condition for the barbecue.

THE chiropractors in some localities in Indiana are organizing what they call neurocalometer clubs. Inasmuch as the neurocalometer is not only one of the biggest fakes ever devised, and its usefulness and value has been questioned by even some of the chiropractors, we are under the impression that neurocalometer clubs will be short-lived except as advertising features in connection with waning chiropractic practices.

EVERY county medical society is a judge of its own membership, but that does not mean that any county medical society can with justice to itself and the State Medical Association admit or retain as a member a doctor who is "quacking" it. The Montgomery County Medical Society at the present time has a chance to assert itself in the matter of disciplining or penalizing one of its members who has gone wrong.

WE need more doctors in the next Indiana legislature. Why not make a canvass of every district in the state and endeavor to get one or more physicians in every district to secure a nomination for either the House or the Senate and then urge the medical profession to get out and elect those men?

THE railroads have granted a one and one-half round trip fare to the Dallas session of the American Medical Association. In order to secure this rate it will be necessary for each member to secure a certificate from the ticket agent when he purchases his ticket to Dallas. The dates of sale of tickets to Dallas will be April 15 to 21, inclusive, and good for return not later than April 27. The return ticket must be used over the same route as that traveled in going to Dallas, and the tickets will not be good on any limited train on which reduced fare transportation is not honored.

THE effort to eradicate diphtheria in New York state has the sanction of the county medical societies of that state, and as an indication of it we give the resolution passed by one of the county medical societies which is as follows: "Resolved, that it is the sense of this meeting that the present effort being made by the New York State Health Department to have the children of this county immunized against diphtheria by the administration of toxin-antitoxin be heartily approved, and that the parents be encouraged to give their consent; and be it further Resolved, that a copy of the resolution be published in the local papers."

NEXT month the American Medical Association convenes in annual session at Dallas, Texas, the session to continue from April 19 to 23 inclusive. Aside from the fact that splendid scientific programs have been arranged for the various sections, there will be the usual scientific exhibit, and the always interesting commercial exhibit, to say nothing of a varied program of social entertainments. The well-known prodigal hospitality of the Southern physicians will be exemplified to the fullest extent, and everyone who attends the Dallas session is assured a profitable time. The hotel accommodations are ample, and the season of the year is one that finds Dallas at its best.

WE hope that the doctors of Indiana have noticed the excellent work being done by the Bureau of Publicity of the Indiana State Medical Association. Each week a well-written article on some medical subject, written in language that a layman can understand, is prepared and released for publication in the lay press. An increasing number of the newspapers of the state are publishing these articles regularly, as editors are beginning to realize that the articles are not only trustworthy and instructive but that they are issued from purely altruistic motives and with a desire to pro-

mote individual health. Members of the Association should use their influence with editors and proprietors of newspapers in an effort to have these weekly releases more widely published.

IN a recent number of THE JOURNAL, we published the Michigan program proposed for the adoption and use of county medical societies in Michigan. Why can't Indiana be as progressive? Anyway, there is no reason why some of our county medical societies cannot conduct postgraduate clinics. Certainly our Indiana county medical societies ought to get away from the old moss-covered idea of having a few meetings a year with an occasional dry paper and a dryer discussion. We admit that there are several very active and progressive county medical societies in Indiana, but we are forced to admit that there are others that exist in name only, or at best are fairly well fossilized.

THE Harrison Narcotic Act has been a source of much annoyance to many members of the medical profession whose reputation and integrity place them beyond reasonable suspicion of dispensing narcotics to addicts, and yet statistics seem to show that the act has accomplished very little in the suppression of the use of narcotics because there are so many underground channels through which narcotics are obtained and sold to the addicts. However, this does not justify any conclusion that the Harrison Narcotic Act has not served some purpose. If the narcotic act is to be modified it should be modified in such a way that the peddlers of narcotics can be detected with more certainty and more severely punished.

A VERY well-known English physician was responsible for a newspaper article concerning the treatment of hay fever. His name was not mentioned in connection with the article, but the newspaper received numerous inquiries concerning the treatment, all of which were turned over to the doctor who was responsible for the information. This feature came to the knowledge of the medical society to which the contributor belonged and he was expelled from membership very promptly. Evidently our English confreres have a higher regard for ethics than we do, for in this country even more flagrant abuses of our so-called medical ethics are practiced by some men in high places and we never bat an eye. Why not penalize some of our medical men who transgress all the rules of ethical decency?

A STATISTICAL bulletin of the Metropolitan Life Insurance Company says that the year 1925 marked an important milestone in the conquest of tuberculosis in that the death rate among the American and Canadian industrial populations for the first time in their history actually fell below one hundred per hundred thousand. Even ten

years ago the most optimistic of public health workers would not have ventured to predict that the mortality from tuberculosis could have been brought down to anything like this figure within a single decade. The result has been accomplished as a direct result of a more widely distributed knowledge and application of preventive measures, not the least of which has been the general dissemination of the idea that fresh air, sunlight, appropriate diet, and regulated exercise, is essential in the promotion of better health and of the utmost importance in the treatment of tuberculosis.

HYGEIA, in the February number, reports a man aged eighty-five, who admitted never having taken a bath during his life, and that he had as fine a skin as anyone. The suggestion is made that many persons bathe too much. To our notion the teaching is rather dangerous, for it is entirely questionable if there are any considerable number of people who really bathe too much. On the other hand, it is unquestionably true that a very large proportion of our population do not bathe enough, and our sympathies go out to those who have to come in close contact with the eighty-five-year-old man who never took a bath in his life. It reminds us of the tale, perhaps fictitious, of the bibulous Kentucky colonel who said that water was intended for bathing purposes but never to drink.

WORK is progressing upon a great medical center in New York City which will be constructed at a cost of many millions of dollars. It will include the College of Physicians and Surgeons, the Presbyterian Hospital, Sloane Hospital for Women, the Harkness Private Patient Pavilion, the Neurologic Institute, the Baby's Hospital, the Vanderbilt Clinic, and the New York State Psychiatric Institute and Hospital. The medical college will have thirteen full stories and a tower. It is contemplated that other units will be added within the next few years and that those already mentioned will be in operation late this year. What is being done in New York is being done in several other metropolitan centers, and even in our own state we have the beginning of what eventually will be a very comprehensive medical center in Indianapolis where the medical department of the University is surrounded by a number of general and special hospitals.

MOST of the opponents of scientific medicine who are fighting smallpox and diphtheria immunization make the specious argument that the reason why doctors favor vaccination and diphtheria immunization is because they profit by it through the charges made for the service. Nothing could be farther from the truth, for aside from the fact that the eradication of smallpox and diphtheria means less work and less profit for the physicians, the immunization in itself brings little or no re-

ward for it is gratuitous when furnished by the State or municipal boards of health, and is very largely gratuitous even when carried out by the individual physicians in private practice. In every populous community, wherever it is practiced, hundreds and thousands of children are vaccinated against smallpox, and given toxin-antitoxin immunization against diphtheria, entirely at public expense and with not a cent of profit to any of those who administer the treatment. Therefore, it is nothing short of general cussedness that causes the "antis" erroneously to accuse doctors of having self-interest in the question of immunization against smallpox and diphtheria.

WE have been favored with a "rise" from the Christian Scientists and a representative of the League for Medical Freedom as a result of some of our editorials touching upon Christian Science fallacy and the inconsistency of the anti-vaccinationists in fighting smallpox and diphtheria prevention. As usual the subject is argued not from the standpoint of logic or facts but personal opinion. They remind us of the leader of a religious sect having its headquarters near Chicago who says that the world is flat and no one can prove to him that it is round or ever was round. Argument with such a man is futile. The inconsistency, misrepresentations and even actual falsehoods that have been given out by anti-vaccinationists and Christian Scientists have been exposed times without number, and yet the ring leaders, for reasons best known to themselves, continue to carry on. The only thing we have to say to these misguided fanatics is that we challenge them to put their faith to the test, and we willingly will be very lenient and very charitable in our opinion and criticisms of any failure on their part to prove their beliefs.

THE program committee is preparing the program for the next session of the Indiana State Medical Association. The executive secretary has made a survey of the programs for the last six years, and finds that during that time 255 different Indiana physicians have appeared upon the program, and out of that number several physicians have appeared four or five times either as the reader of a paper or as a discussant. It is further shown that there are fifty counties in the state that have not had a speaker upon the program either as essayist or discussant, and that one whole district never has been represented on the program for the last seven years. The committee adopted a resolution to the effect that abstracts must be sent to the office of the executive secretary, and that they must be in at a specified date in order to insure appearance in the number of THE JOURNAL issued just preceding the West Baden session. It also was decided that each section shall have the same number of out-of-the-state men on the program, and that this number be not in excess

of two for each session. It also is the consensus of opinion that the program should be well-balanced. As usual the general meeting will be held on Thursday morning, and the section meetings on Thursday afternoon and Friday morning.

INDIANA doctors who expect to attend the Dallas session of the American Medical Association are offered several special trains that leave from Chicago, but may be joined at St. Louis. Among these are the golf special, which goes a week earlier, and stops at various cities en route for the purpose of giving those on the train the advantage of several days of golf playing. Then there is the Chicago Medical Society official train which will go direct to Dallas, and we are told that the Illinois Central Railroad, in connection with connecting lines, will run a second golf special. It is possible to visit New Orleans and other interesting points in the South on the going trip, and Hot Springs, Arkansas, when returning, or vice-versa. For Indiana doctors the most direct route will be by the way of St. Louis where direct service may be obtained over the Missouri, Kansas & Texas Railway, or the Missouri Pacific Railway. Indiana doctors may be interested in the through sleeper to be run by the Pennsylvania Railroad Co. from Indianapolis to Dallas, leaving Indianapolis at 12:01 a. m., April 18th, and arriving in Dallas at 7:45 a. m., April 19th.

THE attempt to foist state medicine upon us has been greatly aided by the Veterans Relief Legislation of 1924 when, as the *Journal of the A. M. A.* says, the Federal government planted the germs of state medicine in our body politic and entered directly into competition with private practitioners and private hospitals of the country. Under the provisions, the government now treats at public expense disease and injury having no relation to government service, military or otherwise. Realizing the danger of the situation the House of Delegates of the A. M. A. at the Atlantic City session of 1925 adopted the following resolution:

Resolved, That the American Medical Association, through its accredited representatives and with the assistance of the accredited representatives of constituent organizations, whose cooperation is solicited, put forth every honorable effort to secure an amendment to the Veterans' Act of 1924, which will do away with federal free medical and surgical services and care for all veterans except those whose disabilities have been caused by war service for our country, or at least restrict free medical and surgical services and care to those veterans who are unable to pay for the same.

IN this number of THE JOURNAL we publish a communication from a Brooklyn doctor in which

he analyzes the statistical report on maternal and infant mortality in Indiana as presented by the secretary of the State Board of Health in the February number of THE JOURNAL, and credits it as being fallacious argument in favor of the Sheppard-Towner Act, which act in reality has not accomplished what its sponsors claim for it. We also are reproducing the protest of the re-enactment of the Sheppard-Towner Act as editorially voiced by the *Journal of the A. M. A.*, on February 6, 1926. As our readers well know, we were opposed to the passage of the Sheppard-Towner Bill, and we have had no occasion to change our attitude concerning it. The act has been condemned unreservedly by the House of Delegates of the American Medical Association, and we join in the plea of the *Journal of the A. M. A.* that state associations and county societies, and the physicians of the country generally, immediately should telegraph or write to the president and to their senators and representatives protesting as to the re-enactment of the Sheppard-Towner Act or the adoption or continuation of any act that carries with it the purposes of the present Sheppard-Towner Act.

IN a radio talk from New York on "Earache" some very excellent advice was given, and in conclusion the speaker condemned the use of warm, sweet oil in the ear, so commonly employed for earache, and advised prompt consultation with a physician at the beginning of every earache in order to determine a correct diagnosis of the condition. If the doctor finds the drum bulging and red, indicating severe inflammation, he will incise it and prescribe the proper irrigations. Of special importance was the injunction that children with earaches should not be allowed to go until the drum "breaks itself." Such treatment subjects the little patient to many hours of torture, and no one knows how many cases of deafness result from this very unwise method of treating earache. Incidentally, this address to the laity might well have been listened to by some family physicians who could profit thereby. It is surprising how many general physicians tell mothers that the earache in children "will subside when it breaks," and that in the meantime all that is necessary is to instill a few drops of laudanum and sweet oil into the external canal. Perhaps these radio health talks and the publication of health articles by medical associations and boards of health will put the members of the laity in position whereby they can recognize the ignorance of some general physicians.

ON February 1 there were a large number of members of the Indiana State Medical Association who were delinquent in the payment of dues. A considerable portion of the delinquents paid up during the month, but on March 1 there still were altogether too large a number of Indiana doctors

who want to belong to the Indiana State Medical Association and who expect to belong to that organization who have failed to pay dues. We cannot believe that it is due to negligence on the part of any county medical society secretary in reminding members concerning delinquent dues, and even if it were due to any dereliction of duty on the part of county medical society secretaries there is no excuse for the non-payment of dues when every member knows that dues are payable in December and January and become delinquent on the first of February. Our genial executive secretary has made a good point when he refers to the fact that the data for the American Medical Directory is being obtained now, that the directory will be published this spring and the names of those in good standing in county medical societies are so designated in the directory, whereas others, the delinquents, who are not in good standing, are classed as having no affiliation with medical societies. Every licensed doctor should have a pride in having his name appear in the directory as having a good standing in his profession.

THE Yonkerman Consumption Remedy is extensively advertised in the English provinces. It has been several years since we have seen Yonkerman's Tuberculosis Cure advertised in the United States, and perhaps the exposure of this notorious fraud by "Nostrums and Quakery," published by the American Medical Association, was responsible for a crimp in the business of the company exploiting the Yonkerman treatment. In the English provinces the Yonkerman Consumption Cure is exploited under the name of a "remedy for tuberculosis," and then the assertion is made that the remedy is the discovery of Yonkerman, "the famous tuberculosis expert." It may be of interest to know that Yonkerman originally came from Kalamazoo, and was known as a horse doctor. The mail order business originally started in Kalamazoo, spread its tentacles to England, and finally the British colonies, where it now is following a rather precarious existence. The striking feature about the medical fakery business is that it is tolerated by some of the foreign countries more than it is tolerated here where the work of the American Medical Association in exposing medical frauds has made it difficult for the more notorious of the fakes to continue in existence. A point to be remembered is that the bold and vigorous attack upon medical frauds and medical quackery of every type has freed this country from many of the worst nostrums and quacks that thrived upon the American public.

EARLY in January the *Journal of the A. M. A.*, under its Foreign News Department, published an item to the effect that the faculty of the Berlin University had decided against giving any official welcome to American physicians. It seems that the information was quite correct, and the

reason given for the action was that it is retaliation for the exclusion of German physicians from taking part in the International Medical Congress. Since then considerable pressure has been brought to bear upon the faculty of the Berlin University, largely by promoters of medical tours, and it now is announced that there has been a change of opinion and that a hearty welcome will await all those American physicians who contemplate joining medical tours during the coming year. It might be well to remember that the Germans have a hard time forgetting things, and when once they form an opinion or a dislike they are very apt to stick to it, even though later, on the surface, there may be an apparent change of heart. However, this should not unfavorably influence any of those medical men who desire to visit the foreign clinics, as we have noted that the fees received are now quite an inducement to generosity on the part of our confreres when it comes to offering clinical advantages, though it is hoped that the mere commercial side of the proposition will be accompanied by a semblance of cordial hospitality.

THE members of the regular medical profession always have believed in and approved of the use of physical therapy where indicated, and owing to the publicity given to osteopathy and chiropractic the subject has been discussed more frequently in our medical journals. In the November, 1925, number of *THE JOURNAL* there appeared an article on physical therapy by Dr. Charles P. Emerson, dean of the Indiana University School of Medicine, in which the idea was conveyed that we cannot neglect physical therapy but that we must not expect it to be a cure-all, and that only temporary relief is obtained by chiropractic and osteopathy in some of the affections for which the adherents of those cults claim so much in the way of producing permanent relief. The article has brought us a complaint from a prominent osteopath in which he presumes that the regular medical profession admits the existence of dislocated, subluxated joints, and in which a long letter to the Century Company complaining about the reflection upon this theory is quoted. In reality, what the osteopaths and the chiropractors attempt to do is not only to get undue credit for the little virtue there is in their mode of treatment, but to get credit for their erroneous theories as to the cause of practically every ill to which flesh is heir. So far as we know, no intelligent member of the regular medical profession ever has claimed that there was no virtue of any kind whatsoever in either osteopathic or chiropractic treatment, but they never have been willing to give any more credit to it than was due the average, well-qualified masseur, and they still adhere to the statement made by Dr. Currier in his book, "How to Keep Well," so vigorously criticized by the chiropractors, in which the statement is made that the

anatomy of the spinal joints presents a convincing argument against the fallacy that they are dislocated or subluxated with frequency. In fact, numerous experiments have proved the fallacy of the contention of the chiropractors in particular that the spinal nerves are impinged upon by a dislocated or subluxated vertebra. The trouble with all these pseudo-medical cults is that they are founded on fallacious reasoning, and the followers attempt to secure a short cut to recognition as qualified to practice the healing art in any of its phases.

THERE are many philanthropic and benevolent purposes the promotion of which very wealthy men can foster by donations of money, but there can be no better use to which donations can be put than to be used for scientific research. The Rockefeller Institute, established and maintained by the Rockefeller millions, has done much to further medical research, and will continue to do much in the future. The McCormick Institute for infectious diseases in Chicago, which made it possible for the development of scarlet fever antitoxin, is another institution, financed by a wealthy family, that has done and will continue to do invaluable scientific research work in the interests of suffering humanity. Still others could be named, and even since the first of this year the New York University has received a gift of ten thousand dollars, with the promise of a similar amount each year hereafter, to be known as a fund for the Study and for the Prevention and Cure of Pneumonia. This gift is from Lucius N. Littauer, a wealthy glove manufacturer, who makes the gift as a memorial to his wife. The donor specifies that the reserve is to be under the control of Dr. William H. Park, professor of bacteriology and hygiene in the New York University and Bellevue Hospital Medical College, and director of the Bureau of Laboratories of the New York City Department of Health. There are many problems concerning the prevention and cure of disease yet to be solved, and it is only through the generosity of our very wealthy citizens that medical research workers can be secured to devote their lives to research work, as few if any medical men are financially able to devote their lives to research work without compensation.

A SUCCESSFUL business man in addressing a young men's society said:

"Keep up your credit by paying all of your obligations promptly. Above everything else, do not keep your groceryman, your butcher, your tailor or your doctor waiting for money that is due them. It is no discredit to any man to be in debt, except for luxuries when he cannot afford them. If you must borrow money, borrow it from a bank, and give the bank your notes rather than give notes to merchants or solicitors who may peddle your notes around and perhaps pass unfavor-

able comment upon your lack of business sense. Live within your income and save for emergencies, like sickness, that require unusual expense. Let no year pass without showing a saving from income, and make that saving work for you. In making investments seek those that are sound, with a reasonable return in profit, rather than investments that offer large returns but in the majority of instances are apt to prove unsound and perhaps worthless. Most men have reason to doubt their own judgment as to the soundness of securities and, therefore, it is wise to secure the advice of those who make a business of investments. Any reputable banker will give good advice as to investments and, in fact, may give better advice than he would follow himself, as his reputation is at stake. Do not be led astray by the smooth talking promoter who promises big returns upon a small investment. If you are going to take any chance, take it only if you can afford to lose, but remember that where one gamble wins there are a hundred that lose. Finally, aim to establish and maintain a reputation for the highest integrity in all your dealings."

This advice is particularly good for doctors, who are generally known as the most gullible class of people on earth.

BERMUDA is getting to be a favorite winter resort, perhaps because it is wet, but that is not why the editor of THE JOURNAL selected Bermuda for a midwinter vacation place. Anyway, upon landing in New York the customs officers who search the baggage of passengers from Bermuda with a fine tooth comb for the purpose of discovering liquor, remarked to the editor of THE JOURNAL, "Well, there is no use in our searching your baggage, for all you have to do is write prescriptions and you can get all the liquor you want." Whereupon ye editor was the envy of numerous thirsty Americans who regretted that they could not have posed as doctors so that their baggage would escape the customary search for "wet goods." No information was volunteered to the effect that Indiana does not recognize a prescription for liquor by anyone, but it would not have made any difference in this case anyway. As a mere side issue, it was noted that even though Bermuda is visited by thousands of Americans, and the very best quality of liquor is procurable at the liquor stores and hotel bars in any quantities and at pre-Volstead prices, yet a month's sojourn on the island failed to disclose a single case of drunkenness or even of excess drinking on the part of the so-called thirsty Americans. It is reported that on the ships going over drinking is sometimes in excess, but passengers seem to have obtained enough of it before reaching Bermuda so that on that island they revert to reasonable temperance. The English visitors to Bermuda believe that our Volstead experience in prohibition has been a very dangerous experiment, not alone

because it has failed but because it has brought about a rather universal disrespect of all law and order in the United States, and they predict that we have sufficient common sense to see the mistake that has been made and correct it by appropriate legislation.

WITH the approval of the executive committee of the Indiana State Medical Association, a questionnaire is being submitted to five hundred of the prominent physicians of Indiana by the Committee on Research of the legislative body of the Indiana High School Athletic Association for the purpose of obtaining an opinion concerning health problems in connection with high school athletics. In the main the questions have particular reference to the amount of athletic training and work that may be considered reasonably safe for high school boys and girls. Much has been said concerning the injurious effects of the strenuousness of competitive athletics among high school students, and it is recognized that the rivalry existing between various schools and various athletic teams is so great that some effort should be put forth to insure reasonable restrictions, and the question arises now as to what safeguards should be adopted. Physical training in our educational institutions is a very desirable feature and should be encouraged, but it should be carried on under proper supervision and under such safeguards as will prevent any injurious effects upon the health of any of the students. The contemplated inquiry merely aims to procure data from prominent members of the medical profession that will enable the athletic committees of our high schools to formulate appropriate rules and restrictions without doing away with the very valuable features connected with athletic training. This of necessity must recognize the fact that there is a limit to the amount of training that may be taken, the number of hours that should be devoted to it, and the number of students who can engage in athletics without resulting permanent ill effects on health. A well-trained medical man should pass judgment upon the fitness of those who are to engage in competitive athletics as well as upon conditions under which the training and work shall be carried on. It is hoped that the questionnaire which has been submitted to the five hundred prominent physicians of the state will be answered in a fair and impartial manner so that proper safeguards may be placed around our high school students who are engaged in com-

petitive athletics, and thus put an end to the carping criticism of many people to the effect that high school athletics are impairing the health of so many of our high school students.

DEATHS

A. N. TOWLES, M.D., of Indianapolis, died February 8, aged seventy-five years. Dr. Towles graduated from the Miami Medical College, Cincinnati, in 1874.

H. F. COSTELLO, M.D., of Decatur, died January 25, aged sixty-three years. Dr. Costello graduated from the Starling Medical College, Columbus, in 1886.

A. N. HAMILTON, M.D., of Waynetown, died January 23, aged seventy-nine years. Dr. Hamilton graduated from the Miami Medical College, Cincinnati, in 1871.

K. K. STRAUGHAN, M.D., of Waveland, died January 17, aged sixty-nine years. Dr. Straughan graduated from the Indiana Medical College, Indianapolis, in 1878.

N. W. CADY, M.D., of Logansport, died January 18, aged seventy-five years. Dr. Cady was a member of the Cass County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the Bellevue Hospital Medical College, New York, in 1877.

H. H. WEER, M.D., of Indianapolis, died February 4, aged sixty-five years. Dr. Weer was a member of the Marion County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the Eclectic Medical College of Cincinnati in 1884 and the Central College of P. and S., Indianapolis, in 1904.

CHARLES T. TRUMBO, M.D., aged twenty-eight years, died January 15, at his home in Seymour, death resulting from pneumonia. Dr. Trumbo was a member of the Jackson County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the Indiana University School of Medicine, Bloomington and Indianapolis, in 1922.

J. O. STILLSON, M.D., of Indianapolis, died January 28, death resulting from pneumonia. Dr. Stillson was seventy-six years old. He was a member of the Marion County Medical Society, the Indiana State Medical Association, the American Medical Association and was a member of the Indiana Academy of Ophthalmology and Otolaryngology. Dr. Stillson graduated from the Miami Medical College, Cincinnati, in 1871.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE *American Journal of Electrotherapeutics and Radiology* has changed its name to *Physical Therapeutics*.

THE Clay County Medical Society held its annual meeting at the Community Hospital, Brazil, in January.

DR. J. E. LUZADDER, of Bloomington, has been appointed secretary for the Monroe County Board of Health.

DR. WILLIAM E. GABE, of Indianapolis, has announced the removal of his office to 523 Hume-Mansur Building.

DR. O. W. MCQUOWN, of Marion, and Miss Harriet Joost, of Chicago, were married New Year's eve in Chicago.

THE American Ophthalmological Society will hold its annual meeting at The Homestead, Hot Springs, Virginia, June 14, 15 and 16, 1926.

THE American Congress on Internal Medicine held its tenth annual clinical session at Detroit and Ann Arbor, Michigan, February 22 to 27, 1926.

AT the regular meeting of the Jackson County Medical Society, held January 21, Dr. O. G. Pfaff, of Indianapolis, presented a paper on "Abdominal Surgery."

AT the meeting of the Madison County Medical Society, held February 11, Dr. H. R. Alburger, of Indianapolis, presented a paper on "Virtues and Vices of Scientific Medicine."

THE Jasper-Newton County Medical Society held a meeting at Rensselaer, January 28, with Dr. I. M. Washburn as host. Dr. O. E. Nadeau, of Chicago, presented a paper on "Hematuria."

DR. C. B. O'BRIEN, of Greencastle, and Miss Edna Louise Koss, of Indianapolis, were married in Indianapolis, January 20, at the home of the bride's parents. They will make their home in Greencastle.

THE Muncie Academy of Medicine held its regular dinner meeting at the Hotel Roberts, February 19. Dr. Harry G. Sloan, of Cleveland, addressed the meeting, his subject being "Partial Gastrectomy for Chronic Gastric Ulcer."

THE American Proctologic Society will hold its annual meeting in Indianapolis April 16 and 17. There will be a scientific session in the Riley Hospital and a clinical session in the City Hospital. These meetings will be open to all physicians.

THE Tippecanoe County Medical Society and the Lafayette Dental Society held a joint meeting February 9, 1926, at Lafayette. Dr. William H. G. Logan, dean of the Chicago College of Dental Surgery, conducted a clinic at St. Elizabeth's Hospital.

THE Muncie Academy of Medicine held a dinner meeting at the Hotel Roberts, February 26. Dr. A. C. Hall, of Detroit, presented a paper on "Fractures of the Lower Extremity," and Dr. Lawrence Reynolds, of Detroit, presented a paper on "Osteomyelitis."

DR. W. A. SPURGEON, Muncie, Dr. E. M. Shanklin, of Hammond, and Dr. W. T. Gott, of Crawfordsville, all were reappointed members of the State Board of Medical Registration and Examination recently. Dr. J. W. Bowers, of Fort Wayne, was re-elected treasurer.

THE Indianapolis Medical Society held a meeting February 2. Dr. C. A. Stayton, Indianapolis, presented a paper on "The Radiographic Examination as a Factor in the Diagnosis of Chronic Respiratory Infections" and Dr. D. O. Kearby presented a paper on "Acute Otitis Media."

AN examination will be held by the American Board of Otolaryngology in Dallas, Texas, on Monday, April 19, 1926, and in San Francisco, California, on Tuesday, April 27, 1926. Application should be made to the secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

DR. LAFAYETTE PAGE, of Indianapolis, was elected president of the Indiana Academy of Ophthalmology and Otolaryngology at the annual meeting held in Evansville, January 21 and 22. Other officers are Drs. L. D. Brose, Evansville, vice-president; D. S. Adams, Indianapolis, secretary-treasurer.

THE Muncie Academy of Medicine held its dinner meeting in the Hotel Roberts, February 12. Dr. Martha Tracy, dean of the Women's Medical College, Philadelphia, presented a lecture, her subject being "Food and Efficiency." Discussion was opened by Dr. Charles P. Emerson, of Indianapolis.

THE United States Civil Service Commission announces open competitive examination for Medical Interne (Psychiatric). Applications will be

rated as received until June 30, 1926. Information and application blanks may be secured from the United States Civil Service Commission, Washington, D. C.

THE United States Civil Service Commission announces open competitive examination for Dietitian to fill vacancies under the Public Health Service and the Veterans' Bureau throughout the United States. Full information and application blanks may be obtained from the United States Civil service Commission, Washington, D. C.

THE twelfth annual meeting of the Medical Women's National Association will take place April 18 and 19, at Dallas, Texas, in conjunction with the American Medical Association meeting. Headquarters will be at the Hotel Baker. Dr. May Agnes Hopkins, Medical Arts Bldg., Dallas, Texas, is the chairman of the Committee on Arrangements.

THE Travel Study Club of American Physicians, founded at the London International Medical Congress in 1913, has announced plans for its 1926 Study Tour. Physicians in good standing, to the limit of fifty, are invited to participate in this tour. Information may be obtained from Dr. Richard Kovacs, 223 East 68th Street, New York City.

PRELIMINARY arrangements for the international meeting of the National Tuberculosis Association indicate that several specialists from foreign countries will be in attendance. The meeting will be held in Washington, D. C., October 4 to 7, immediately following that of the International Union Against Tuberculosis, which meets in Washington September 30 to October 2.

THE United States Civil Service Commission announces open competitive examination for Occupational Therapy Aide and Occupational Therapy Pupil Aide. Applications for these positions will be rated as received until June 30, 1926. Examinations are to fill vacancies in the Veterans' Bureau throughout the United States. Information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C.

THE United States Civil Service Commission announces open competitive examinations for Graduate Nurse and Graduate Nurse (Visiting Duty) to fill vacancies in the Departmental Service, Washington, D. C., in the United States Veterans' Bureau, and in the Indian and Public Health Services. Applications will be rated as received until June 30, 1926. Full information and application blanks may be obtained from the

United States Civil Service Commission, Washington, D. C.

Verdi's great masterpiece, "The Requiem Mass," will be rendered by the Metropolitan Opera Company at the Metropolitan Opera House, New York City, on the evening of Sunday, April 11, the proceeds to go to purchasing the Knox estate at Ridgefield, Connecticut, as a home for aged and incapacitated doctors. Boxes and reserved seats for the Metropolitan Opera Company's benefit can be had by letter, telephone or wire to the national headquarters, The Physicians' Home, Inc., 22nd floor, Times building, Broadway and Forty-second street, New York City.

THE United States Civil Service Commission announces open competitive examinations for Junior Medical Officer, Assistant Medical Officer, Associate Medical Officer, Medical Officer, and Senior Medical Officer, to fill vacancies occurring in the Federal classified civil service throughout the United States, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer or promotion. Applications will be rated as received until June 30, 1926. Applicants should apply for Forms 2118 and 2398, stating the title of the examinations desired, to the Civil Service Commission, Washington, D. C.

IN addition to the articles already enumerated, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Swan-Myers Company:

Bermuda Grass Concentrated Pollen Extract-Swan-Myers; Costal Sagebrush Concentrated Pollen Extract-Swan-Myers; Johnson Grass Concentrated Pollen Extract-Swan-Myers; Red-Root Pigweed Concentrated Pollen Extract-Swan-Myers; Sunflower Concentrated Pollen Extract-Swan-Myers; Sweet Vernal Grass Concentrated Pollen Extract-Swan-Myers.

EXAMINATIONS of candidates for entrance into the Regular Corps of the U. S. Public Health Service will be held at the following places on the dates specified: Washington, D. C., March 15, 1926; Chicago, Illinois, March 15, 1926; New Orleans, Louisiana, March 15, 1926; San Francisco, California, March 15, 1926. Candidates must be not less than twenty-three nor more than thirty-two years of age and must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. Requests for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION BUREAU OF PUBLICITY

Income:

Balance on hand Jan. 1, 1925.....	\$11,057.23
Membership dues 1925.....	18,408.00
Exhibitors (State Meeting).....	1,970.00
Interest	404.00
Total income.....	\$31,839.23

Disbursements:

Subscriptions to JOURNAL.....	\$5,250.00
Treasurer's Office (while acting as Asst. Sec., steno. 13 wks., postage and incidentals).....	768.61
Printing	46.52
Committees	51.66
Councilors	184.72
Secretary's Office:	
Secretary's salary.....	\$4,624.98
Stenog.'s salary	1,570.00
Petty cash.....	1,800.00
	7,994.98

Annual Session:

Rentals	\$ 150.00
Stenographers	411.50
Programs	193.45
Guests	176.12
Badges	164.73
Reg. clerks	30.00
Telephones	23.90
Booths and signs.....	1,088.80
Hotel bills.....	105.77
	2,344.27
	16,640.76

Balance on hand Jan. 1, 1926..... \$15,198.47

MEDICAL DEFENSE FUND

Income:

Cash on hand Jan. 1, 1925.....	\$3,072.80
Liberty Bond	5,000.00
Interest on Liberty Bond	212.50

Total

Disbursements:
Seven cases..... 837.50

Balance on hand Jan. 1, 1926..... \$7,447.80

CHARLES N. COMBS, Treasurer, 1925.

BUREAU OF PUBLICITY

January 27, 1926.

Meeting called to order at 4:45 o'clock.

Present: William N. Wishard, M.D.; S. E. Earp, M.D.; Murray N. Hadley, M.D.; Thomas A. Hendricks, executive secretary.

The minutes of the meeting held January 20 read and approved.

The release, "Goiter and Iodine," read, corrected and approved.

Request for speaker for the Madison County Medical Society, February 16, received. The secretary was instructed to write the Madison County Medical Society for further details.

Suggestions were made concerning new topics for discussion in newspaper releases.

Clipping upon resolution passed recently by the Benton County Medical Society read by the Bureau.

The Bureau reviews letter written to the Council of the Indianapolis Medical Society suggesting the society have a periodic health examination meeting in the near future.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole February 3, 1926.

WM. N. WISHARD, M.D., Chairman,
THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

February 3, 1926.

Meeting called to order at 4:45 o'clock.

Present: William N. Wishard, M.D.; S. E. Earp, M.D.; Murray N. Hadley, M.D.; Thomas A. Hendricks, executive secretary.

The minutes for the meeting held January 27 were read and approved.

The following bills were approved for payment:

American Linen Supply Co.....	\$ 1.60
Dolbey & Van Ausdall.....	4.15
Remington Typewriter Co.....	.20
Central Press Clipping Service.....	5.00
Hume-Mansur Building, rent and electricity.....	2.00

Total

The release for Monday, February 8, "You May Be Next," was read, corrected and approved.

A letter received from the Porter County Medical Society asking for a speaker for a joint meeting of the Rotary, Kiwanis, and members of the Federation of Women's Clubs of Valparaiso.

A letter received from the secretary of the Madison County Medical Society stating that they had arranged for a speaker for February 16.

Request for speaker for lay meeting of the ninth district medical meeting in May.

Report received from Tri-county Medical Society upon success of scientific meeting Monday, January 25.

Letter received from Mrs. Edna Hatfield Edmondson, executive secretary of the Parent-Teachers' Association. Letter speaks of the use that is being made by the Parent-Teachers' Associations of the State of the Bureau releases.

There being no further business, the meeting adjourned.

The above minutes were approved in each separate part and as a whole February 10, 1926.

WM. N. WISHARD, M.D., Chairman,
THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

February 10, 1926.

Meeting called to order at 4:45 p. m.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D.; Murray N. Hadley, M.D.; Thomas A. Hendricks, Executive Secretary.

Minutes for the meeting held February 3 read, corrected and approved.

The release for Monday, February 15, on "The Shingles Legend" read, corrected and approved.

Letter read from John M. Dodson, M.D., executive secretary of the Bureau of Health and Public Instruction of the American Medical Association concerning the purchase in quantity lots of "The Manual of Suggestions for the Conduct of Periodic Health Examinations." Several methods were proposed for the purchase and distribution of this manual to the physicians of Indiana.

Secretary was instructed to write Dr. Dodson in order that the best method may be selected for the distribution of these pamphlets.

Report received from the Bureau of Investigation of the American Medical Association upon the "Neurocalometer" put out by the Palmer School of Chiropractic.

The secretary instructed to send in *Hygeia* subscription for two years. Cost of subscription for two years, \$5.00, or \$3.00 for one year.

There being no further business, the meeting adjourned.
The above minutes were approved in each separate part and as a whole February 17, 1926.

WM. N. WISHARD, M.D., Chairman,
THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

February 17, 1926.

Meeting called to order at 5:00 p. m.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D., and Thomas A. Hendricks, Executive Secretary.

The minutes of the meeting held February 10 were read, corrected and approved.

The release for Monday, February 22, on "Sleeping Sickness" read and approved.

The following bills were approved for payment:

The Bailey Office Supply.....	\$15.00
Central Press Clipping Service.....	1.67
Kautz Stationery Co.....	4.85
Total	\$21.52

Numerous items and articles upon medical subjects appearing in the press during the last two months were received by the committee.

There being no further business, the meeting adjourned.

The above minutes were approved in each separate part and as a whole February 25, 1926.

WM. N. WISHARD, M.D., Chairman,
THOS. A. HENDRICKS, Secretary.

INDIANA ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

The ninth annual meeting of the Indiana Academy of Ophthalmology and Otolaryngology was held at Evansville, January 20 and 21. This was conceded by all to have been the most successful meeting ever held, both from the standpoint of scientific excellence of the papers presented, and from the general interest exhibited.

The members of the Academy were entertained at lunch on Wednesday by the Lancet Club of Evansville, and on Thursday they were entertained similarly by the Vanderburgh Medical Society.

The guest of honor was Dr. R. C. Lynch, of New Orleans, Louisiana. A most enjoyable banquet was given Wednesday night at the Hotel McCurdy, at which time Dr. Lynch read a paper, illustrated with moving pictures, his subject being "Cancer of the Larynx."

The following officers were elected for the year 1926-27: President, Lafayette Page, Indianapolis; first vice-president, Louis D. Brose, Evansville; second vice-president, O. G. Brubaker, North Manchester; secretary-treasurer, D. S. Adams, Indianapolis. Council—M. Ravdin (to fill the unexpired term of Dr. Smith), Evansville; B. J. Larkin (two years), Indianapolis; C. H. McCaskey (two years), Indianapolis.

The following resolution was adopted regarding the death of Dr. George H. Smith, of Newcastle:

"The Indiana Academy of Ophthalmology and Otolaryngology has sustained a great loss in the last year through the death of Dr. George H. Smith, of Newcastle, a charter member and an active and efficient Fellow of the Academy.

"Dr. Smith suffered long and made a valiant fight for the return to health and activity. He was an industrious student and practitioner and enjoyed association with his fellow-workers, both in professional and recreational hours. We miss him at our meeting, and shall do so in the future, because he was one of us, and we all respected him and enjoyed his cheery personality. To his family we extend our sincerest sympathy.

"THEREFORE, BE IT RESOLVED, That this expression of appreciation and bereavement be spread upon our minutes, and that a copy be sent by our secretary to Mrs. Smith and family.

"C. H. McCaskey,
"E. J. LENT,
"W. S. TOMLIN,
"Committee."

Indianapolis was chosen for the place of meeting for 1927.

Before adjournment a rising vote of thanks was extended to Dr. M. Ravdin and his associates for the many courtesies extended the members, and for their splendid entertainment.

INDIANA UNIVERSITY SCHOOL OF MEDICINE

The Indiana University School of Medicine, in Indianapolis, includes the medical school, the two state hospitals, the James Whitcomb Riley Hospital for Children and the Robert W. Long hospital, which are organized and administered as integral units of the medical school; the training school for nurses, and the medical social service department. The last three years of the medical course are given in Indianapolis, and the first regular medical year, and the two years or more of pre-medical work are given in Bloomington.

Enrollment in the medical course of the three upper years, in Indianapolis, totals 264, Sophomores number 95, Juniors 87 and Seniors 79, with three unclassified. There are 118 in the first year at Bloomington, making the total medical school enrollment 382. Nine of the 1925 graduates are doing postgraduate work while serving internships in local hospitals. The training school for nurses, which has the distinction of being the first training school to be organized as a part of a college of liberal arts, has 147 nurses in training, including 30 probationers who entered March 1. An additional class of 50 probationers will be received in September. The probationary period is six months, and those who are successful are given two and a half more years of training. Eighteen will receive degrees as graduate nurses from the university in June. Graduates who have had three years of academic work will also receive the A.B. degree.

In the social service courses 54 are enrolled.

Indiana is one of the very few medical schools to offer a course in the theory and clinical application of physiotherapy, which is being conducted during the second semester for Seniors by Dr. Edwin N. Kime.

Over eighty thousand treatments will be given this year in the Bobbs and City Free Dispensary which is maintained jointly by the university and the city of Indianapolis in new quarters at the City hospital. Service is given by the medical school staff, and all students have extensive opportunities for clinical observations and practice.

The course of eighteen lectures in tropical medicine is being given this year during the second semester for Seniors by Lt. Col. James D. Heysinger, M.D., Medical Corps, U. S. Army.

Postgraduate courses in surgery are being conducted by the faculty at Terre Haute, Seymour, Columbus and Madison. These courses of eighteen hours each, said Dr. Charles P. Emerson, dean of the medical school, are arranged at the invitation of the various county medical societies, which have invited Indiana University to provide them with the lecturers who best can present the subjects of the program previously agreed upon by both. Officers of the medical school praised the progressive spirit and earnest professional attitude of the practicing physicians in thus seeking to keep abreast of the progress of medicine and surgery. The function of the medical school is not limited to training new physicians, it was pointed out. The opportunity to be of service to practicing physicians as well as other citizens of the state is welcomed by the university authorities.

Intensive courses in medicine and surgery are to be given during the coming summer for practicing physicians of the state, it has been announced. Lectures and clinics will be conducted in the medical school building, and in the university hospitals, the Robert W. Long, and James Whitcomb Riley Hospital for Children. The attendance in these courses during the past three summers has been very gratifying, said Dean Emerson. The courses will last six weeks.

Although a year of work as hospital interne is not required in Indiana for license to practice, records of the 1925 graduates show that all of the eighty-eight who received their M.D. from Indiana University now have interne positions or are doing hospital laboratory or research work. The Indiana product has been particularly successful in competition with graduates of widely known eastern schools for positions in New York and Pennsylvania. Eight are in naval base hospitals. Two are in California and one each in Washington, Florida, Minnesota, Illinois, Michigan and Kentucky city hospitals. Fifty-two are in Indiana hospitals, mostly in Indianapolis. The fact that the medical school has a class A ranking, as do the university hospitals, together with the abundant clinical experience available, are regarded as strong points in the Indiana graduate's favor.

Admissions of children to the James Whitcomb Riley Hospital for Children totaled 1,325 from the time of the opening in November, 1924, to February 1, 1926. In addition, a large number of children were given attention in the out-patient clinic. A well planned record system has been installed which makes case study convenient, the patients' records being numbered and indexed under the type of injury or deformity, or disease, treated. In this way all cases of a particular type can be found readily and full details of the method of treatment and results obtained be learned, together with the full personal data and results of laboratory and psychological study.

The importance of selection and preparation of proper foods for patients is recognized in postgraduate courses for hospitals dietitians, under the direction of the medical school, and taught in connection with actual practice in the Riley hospital, where three highly trained dietitians are already employed to co-operate with pediatricians in meeting the requirements of malnourished children. Experience with adult patients' requirements will be gained in the diet kitchens of the Long hospital. Dietetic students here were the first in any school to be taught the application of dietetics in the treatment of disease by individual case study in hospital wards under a medical instructor.

Robert E. Neff, registrar, and administrator of the university hospitals, has been appointed to membership on the National Hospital Day committee of the American Hospital Association. He will help plan for observance of National Hospital Day, May 12.

In order that the work of the Riley hospital may not trespass on the field of the home physician or cause unnecessary expense to the counties, trained workers from the medical social service department under the supervision of Miss Grace Ferguson, and direction of Dean Emerson, are making careful investigations of cases referred to them before admission or after discharge from the hospital. In many cases it has been found on consultation with a local physician, that the child can be treated at home, and if the parents are unable to pay, arrangements are made with township trustees or other agencies to pay the physician. No cases are admitted except on a physician's recommendation. Patients can often be discharged earlier, also, when the social workers can arrange for home medical supervision and treatment. Most parents can and will pay for ordinary treatment, the workers find, but they can not pay for surgical care or long hospital treatment, and the local physician usually welcomes relief from such unrewarded service.

CORRESPONDENCE

THE EFFECT OF SHEPPARD-TOWNER ACT ON INDIANA

Brooklyn, N. Y., February 18, 1926.

To the EDITOR:

My attention has been called to "Public Health in Indiana" on page 75 of the Feb. 15, 1926, issue of THE JOURNAL (Vol. XIX, No. 2), wherein the secretary of the Indiana State Board of Health recites some commendable reductions in the death rate from tuberculosis, typhoid, diphtheria, scarlet fever, etc., and deplores the increase in cancer death rate and the loss of life by automobile accidents, but stresses the failure of Indiana to modify downward the deaths of women from puerperal causes until outside interference in the shape of the Sheppard-Towner Maternity Bill became operative in Indiana in 1922 and he quotes some figures alleging that 400 mothers have been saved, which, at the Indiana court valuation (or, as he calls it "statutory valuation") of \$5,000, would mean \$2,000,000, "to the credit of applied knowledge and effort in the Hoosier ledger—in mothers saved to their children and the state." The statistician slipped up a bit; if the 1920 rate had persisted during those five years (485 total deaths per annum) the grand total would be 2,425. The statistician holds that no change occurred in 1921, but that the total 1922 deaths were 403, the 1923 deaths 392 and the 1924 deaths 264, making a grand total of 2,129 or a net saving of only 296 mothers in three years, at \$5,000 per mother makes the apparent saving in *dollars* to the state of Indiana \$1,480,000.

Since the real argument among the advocates of the Sheppard-Towner Maternity Bill is "dollar economy" to meet opposition to the increased taxation from those 50-50 federal aid measures and to dwarf the significance of the Sheppard-Towner Maternity Bill in particular as a means to the limitation of population by the opportunity for the whispered word from the Bothersome Berties and Meddlesome Matties of the Children's Bureau of the Department of Labor communicating the "Hygiene of Infancy and the Hygiene of Pregnancy and Other Purposes," according to the title of the bill; since we are to talk in *dollars*, suppose we see what the population of the state of Indiana has done to the *babies*!—to those upon whom Indiana must in the future depend if it is to continue to be Indiana; suppose we see whether Indiana has saved or lost *dollars*.

Obviously if the death rate of mothers is 14.5 per 100,000, as the article in question says, or 485 total deaths, the population of Indiana must be:

14.5 : 485 :: 100,000 : X (Population)			
or 3,344,828, so we have			
1920	14.5	485	3,344,828
1921	14.5	485	3,344,828
1922	13.4	403	3,007,463
1923	13.0	392	3,015,385
1924	11.8	364	3,084,746
....

Obviously, too, Indiana had no such fluctuation in population as the statistics of Dr. King's report appear to yield; suppose we take an average of those five and call the population 3,159,450; if Indiana did not budge its birth rate from the "22.0 to the 1,000 of population" (1920), as the census bureau had it in the Public Health Reports (U. S.), then Indiana in 1924 should have had 69,507 births. But the Census Bureau says that in 1924 Indiana had only 67,842 births, therefore the deduction is warrantable that the "cockle" sown by the Bothersome Berties and Meddlesome Matties of the Children's Bureau of the Federal Department of Labor teaching the "other purposes" of that Maternity Bill, "growing up hath choked the seed of 1,665 babies", preventably controlling their birth and robbing Indiana of 1,665 times what the statistician calls the "statutory value of a person of whatever age, as placed upon him by the courts" (\$2,000), or a total *loss* of \$3,330,000—from which we

may subtract the \$1,480,000 gained by the saving of 996 mothers in three years, first dividing it by *three* to get 1924's share, and we find the net loss in *dollars* to the State of Indiana in 1924, \$3,330,000 minus \$493,000, or \$2,837,000!

Nor is that all. During those three years the citizens of Indiana have been taxed \$181,032, which brings the *dollar* loss up to \$3,018,032.

Nor is that all. Out of this \$181,032 state and federal taxes (\$107,031 federal and \$74,001 state, "matching"), Indiana was only permitted the use of \$166,032 because \$4,155 was the rake-off of the "Children's Bureau of the Federal Department of Labor" as part of the \$50,000 administration fund (per annum), while \$10,875 went to pay nearly one-half of the amount that Maine received over and above the amount of its contribution, or almost one-third of the amount which Wyoming receives over and above the amount paid in. Oh! How the proud spirit of the founders of this nation must squirm as they look out of the windows of Eternity and see twenty major, progressive and fruitful states (including Indiana) initiated into the Ancient and Pitiable Order of Goats by the operation of a Sheppard-Towner Maternity 50-50 Law while twenty-eight minor states, with a population less than the average state population are made parasites by the same law, sponging one dollar for every four used within the state—"panhandling" two-bits to the dollar!

I would have the citizens of Indiana, medical and lay, understand that a statistician can make thirty cents look like a dollar or a dollar look like thirty cents, depending upon which side his bread is buttered. But this baby loss; this loss of possible Indiana citizens to carry it on in the years to come is a concrete and understandable and natural result of this Sheppard-Towner Maternity Bill. The U. S. Public Health Reports show a loss in the nation's birth rate of 2.4 to the 1,000 of population during the five-year experimental operation of that Sheppard-Towner Maternity Bill, and the state of Montana, after an intensive campaign by these Bothersome Berties and Meddlesome Matties among the women of that state, covering those five years, is in the unenviable position of having the lowest birth rate in the nation. Yet in the face of these facts a bill is before the present Congress to extend the operation of the Sheppard-Towner Maternity Law *two years*. It is up to Indiana not to be misled by inaccurate and incorrect statistics and false doctrines but to *kill* that bill and set about reducing the death rate from puerperal causes with the same zeal and devotion that has made possible the reduction in the death rates of tuberculosis, typhoid, etc., *without* a 50-50 federal aid tuberculosis bill or typhoid bill or what not.

Sincerely,

JOHN J. A. O'REILLY, M.D.

ABSTRACTS

ACTION OF PITUITARY EXTRACT ON THE UTERUS

The action of pituitary extract on the uterus, M. Pierce Rucker, Richmond, Virginia (*Journal A. M. A.*, Nov. 21, 1925), shows, is quite characteristic. It never gives contractions with periods of rest between, but always a continuous series of contractions with increase in intra-uterine pressure. This action was illustrated in a case of inevitable abortion in which labor was induced in the fourth month with a No. 3 Voorhees bag. The patient was given one-fourth grain (0.0162 gm.) of morphin and 1/150 grain of atrophin at 1:30 p. m. At 8 p. m. she was having painless contractions of the uterus that averaged 10 mm. of mercury at intervals of two minutes. She was given 5 minims (0.3 c.c.) of pituitary extract subcutaneously. Five minutes later, there was a characteristic pituitary extract action. The contractions increased in height only very slightly but

were continuous one after another, without any period of rest. Twenty-two minutes elapsed before there was the slightest pause between contractions. The intra-uterine pressure was increased 6 mm. of mercury. The patient still felt no pain. In other words, here was a dose so small (considering the stage of pregnancy) that it caused no action clinically, and yet it produced an incomplete tetanus of the uterus.

DIATHERMY IN STOMATOLOGY

Budd C. Corbus, Chicago (*Journal A. M. A.*, Nov. 21, 1925), states that diathermy is absolutely bloodless if a flat or blunt electrode is employed, which, if properly used, insures not only destruction of the mass but also sufficient coagulation of the tissues in the immediate neighborhood to minimize the possibility of cell implantation. Vascular structures situated in the near vicinity are sealed, thereby lessening the absorption of infection. Consequently, a shorter convalescence is insured. On account of the absence of any extensive cutting procedure, postoperative shock is minimized, and this is of great value in operating on patients of advanced years. Lastly, and most important of all, is the density and extent of the scar tissue that results after the employment of diathermy in treating malignant disease. The body defense against carcinoma metastasis lies in the formation of the connective tissue capsule. The scar tissue that is formed after a diathermy "burn" is more dense and spreads farther into the surrounding tissue than is the case after any cutting operation; therefore, we have an extensive reinforcement of nature's attempt to throttle the embryonal cell.

LOWERED FERTILITY IN THE MALE

Donald Macomber, Boston (*Journal A. M. A.*, Nov. 21, 1925), emphasizes the importance and frequency of low fertility in the male and urges the value of careful study in each case. Such a study must include a thorough microscopic examination of the secretions and of the spermatozoa as well as palpation and inspection of the organs. It is to be supplemented by an exhaustive inquiry into the habits of the patient's life, with particular reference to those of sex. It is only on the facts accumulated in this manner that a satisfactory opinion as to fertility and a rational plan of treatment can be outlined.

TREATMENT OF SEPSIS WITH MERCUROCHROME-220 SOLUBLE

A. V. St. George, New York (*Journal A. M. A.*, Dec. 26, 1925), reports five cases, in which mercurochrome was administered intravenously during life, which came to necropsy in the chief medical examiner's department of the city of New York, and showed, among other anatomicopathologic changes, the lesions of mercurial poisoning. These five cases represent the first of a series that came under observation. Since these cases all showed strikingly similar lesions, both in the kidneys and in the colon, the chief medical examiner has performed post-mortem examinations on all cases reported to his department in which mercurochrome has been used, with the result that he has accumulated a series of twelve cases, all of which showed evidence of renal and colon involvement. In the five cases presented, it is St. George's opinion that mercurochrome induced intense nephritic and intestinal lesions and thus contributed to death. Chemical analysis of all the viscera in these cases showed mercury in even larger amounts than were found in mercuric chlorid poisonings, a fact indicating the marked toxicity of this drug. From the meager cautioning literature, and the unfavorable cases that are everywhere discussed but not published, St. George says it is evident that the dangers of the drug have not been brought sufficiently to the fore. Locally, mercurochrome probably is a ve-

good antiseptic; systemically, it may possibly be of value in selected cases when properly administered and controlled, though its indiscriminate use, for example, in such conditions as acute rheumatic fever or malaria, should not be countenanced. That its dangers are constantly to be borne in mind is apparent from the cases reported, in that mercurochrome in its therapeutic dose not only exhibited no curative effect, but produced lesions associated with the toxicologic agent, and the margin of safety between a therapeutic and a toxic dose must be variable and small indeed.

ANAPHYLACTIC REACTIONS FOLLOWING ADMINISTRATION OF SERUMS

Attention is called by Chester A. Stewart, Minneapolis, (*Journal A. M. A.*, Jan. 9, 1926), to danger of the occurrence of anaphylactic reactions following the administration of various antitoxins containing horse serum to children who have been sensitized to this serum through diphtheria immunization. Active immunization of the child population against diphtheria is so important, however, that the development of a method by which an immunity to this disease may be acquired without serum sensitization is highly desirable. Until such method has been perfected, diphtheria toxin-antitoxin preparations containing goat rather than horse serum should be used. Stewart reports briefly seven cases. The first instance occurred following the administration of a prophylactic injection of antitetanic serum to a child who had received immunizing doses of diphtheria toxin antitoxin one year previously. Five additional cases of anaphylactic reactions were seen following the administration of prophylactic doses of scarlatinal antistreptococcic serum to children exposed to scarlet fever. The seventh anaphylactic reaction occurred following the injection of diphtheria antitoxin. This child, three months previously, had been immunized against diphtheria, but apparently had not developed an immunity to the disease. The reaction in this instance was much milder than in the other six cases. No deaths occurred among these seven patients, nevertheless the reactions experienced probably should serve as a warning to use care in the administration of serums, derived from horses, to children who have been previously sensitized by injections of diphtheria toxin-antitoxin.

PARAFFINOMA

Seven cases of paraffinoma have been seen by Douglass W. Montgomery and George D. Culver, San Francisco, (*Journal A. M. A.*, Jan. 9, 1926). Two cases were of more than ordinary interest. A woman, aged 43, was seen three months after the last injection. Two days after this last injection, she caught "cold" in the face in going to the beach, and the site of the injection became swollen, red and inflamed; ever since this irritation had recurred about every ten days. When the patient consulted the authors there was a dark red, irregular shaped induration of the left cheek, with much edema of the left lower lid. The patient had several infected teeth that may have had some influence in what was considered to be a recurrent relighting of a chronic streptococcic infection. She also had a gastro-enteritis, which also may have contributed to her attacks. Antistreptococcic serum was employed in vain; the attacks persisted, sometimes as nodules, sometimes as more widely spread indurations. After seven months of treatment, during which many remedies were tried, the patient vanished from our sight, with no improvement noted. The other interesting case was one in which the scars resulting from the paraffin injections underwent a curious fatty degeneration, giving a picture resembling pseudoxanthoma elasticum. The woman, aged 44, had had paraffin infiltrated into the cheeks five years previously, and they had recently become inflamed. This inflammation subsided under appropriate treatment, but the deformity proceeded

in the usual way, and among other things interfered with the opening of the mouth. The authors conclude by stating: The question of punishing persons who cause such suffering is a grave one. The legal phrase *caveat emptor*, (let the buyer beware), is an old one in Anglo-Saxon law, and is justly respected, but the conditions in modern life have changed. A few years ago no one suspected the psychic effect of advertising. We now know that the most vicious and destructive agents or measures may flourish under its influence, and that a given amount of advertising will secure a given amount of trade, irrespective of the worth of the article advertised. The people who do this advertising of an injurious method or substance are as deliberately vicious as those who accomplish the act, and both should receive a punishment adequate to the harm they do.

RELIEF OF HAY-FEVER BY INTRADERMAL INJECTIONS OF POLLEN EXTRACT

The results obtained in a series of twenty-nine cases of hay-fever intradermally treated with pollen extract and the technic employed are detailed by E. W. Phillips, Phoenix, Ariz., (*Journal A. M. A.*, Jan. 16, 1926): The pollen extracts were made from local pollens by a modification of Clock's method, and Coca's fluid was used as a diluent. They were the same that had been used in the subcutaneous treatment, and except for the advantage inherent in the use of local pollen, they were not different from other good extracts similarly prepared. The relative potency of the extracts may be judged by the fact that an ordinary pre-seasonal (preventive) course begins with 0.05 cc. of the 1:5,000 dilution and ends with 1 cc. of the 1:500 dilution. This is enough to protect the average patient, and many never tolerate so much and still are protected. The increase in dosage was adjusted to the tolerance of the individual patient, the attempt being to produce a local reaction about the size of the patient's palm, which reaction should begin to subside within twenty-four hours. With some patients the dose could be doubled at each treatment; others tolerated only a 50 per cent increase, and occasionally a dose had to be repeated without increment. When relief was obtained, the dose interval was doubled, and the progressive increase of dosage was continued. Then, after three or four doses, the patient was directed to return at the first sign of hay-fever, and at ten-day intervals even if no symptoms had recurred. Intradermal injections are painful if more than 0.25 cc. is introduced into one wheal. Accordingly, it was found necessary to add dilutions of 1:2,500 and 1:250 to the armamentarium. Treatment of these twenty-nine patients by the intradermal method, according to Phillips, was monotonously successful. Complete relief, or so near an approximation to it that the patients were comfortable and satisfied, occurred in every case. And it occurred early; six patients were made comfortable by the first dose. Those who were treated daily (ten patients) reported themselves as relieved, on the average, at the end of about two and one-half days, with an average of the same number of doses. The longest refractory period was seven days with six doses. Those who came three times a week (nineteen patients) were made comfortable, on the average, in six days after two and sixteen-nineteenths doses. The most refractory took twelve days with five doses. As stated above, treatment was continued at increasing intervals and with ascending dosage for some time after relief was obtained. So far as these few cases are concerned, it appears that a treatment consisting essentially of frequent intradermal tests of increasing strength promptly and effectively relieved the symptoms of hay-fever.

SURGERY OF THE STOMACH AND DUODENUM

The special points in the surgery of the stomach and duodenum discussed by G. W. Crile, Cleveland (*Journal*

A. M. A., Nov. 21, 1925), are based on a study of the clinical histories and the results in 1,009 operations performed by him and his associates. This number includes 519 operations for ulcer—235 for gastric ulcer and 284 for duodenal ulcer; 329 for malignant tumors—323 for carcinoma of the stomach, three for sarcoma of the stomach, and three for carcinoma of the duodenum. It is emphasized that all cases of ulcer of the stomach or duodenum, excepting those which are attended by obstruction, massive hemorrhage or acute perforation, should be first hospitalized and treated medically, for in certain types of cases a properly administered and protracted Sippy treatment will give satisfactory relief. Contrary to expectation, it now appears to be the consensus of opinion the world over that cancer is grafted on a peptic ulcer in less than 10 percent—probably less than 5 percent—of the cases. A third point is that, despite all the theories that have been advanced regarding the etiology of ulcer of the stomach, its real cause is not yet known. Crile has been impressed by the analogy between peptic ulcer and hyperthyroidism. In brief, Crile's plan of management of ulcer of the stomach, as based on these considerations, consists in preliminary trial of medical treatment. If the Sippy routine does not provide symptomatic relief within two weeks, surgical treatment is instituted: (a) for duodenal ulcer, a Finney or Horsley type of operation; otherwise a posterior jejunosomy; (b) for gastric ulcer, partial gastrectomy. The principle on which the foregoing procedures are based is in accord with the treatment of hyperthyroidism; namely, resection of the stomach controls hyperacidity just as thyroidectomy controls hyperthyroidism; a change from a mechanical to a physiologic attack. The operation is safe, and the clinical results incomparably better.

FURTHER STUDIES ON THE DICK TEST

P. S. Rosen, P. B. Sadowski and L. A. Korobicina, Moscow, Russia (*Journal A. M. A.*, Nov. 28, 1925), have made 2,487 Dick reactions on healthy persons, among the inhabitants of the small manufacturing town Jarcewo. The reaction was made with the toxin of the Metchnikoff Institute, purified after the Hentoon process. The strength of the toxin was 1:500. They have obtained 867 positive and combined reactions, or 34.9 percent, a lower percentage than that obtained in Moscow. This difference may be explained by the fact that there was an epidemic of scarlet fever at Jarcewo. Out of twenty-nine old persons, most of whom were over 60, there was only one with a slight positive reaction. It is noteworthy that during the epidemic of scarlet fever in the Farroer islands at Tjornshavn, there were ill with the disease only 2.9 percent of the inhabitants between the ages of 40 and 60 years, and only 1.8 percent of the persons over 60. Of 179 persons who declared they had previously been ill with scarlet fever, 63, or 35.2 percent, showed a positive or combined reaction. Very young children in families with a higher standard of living had a retarded spontaneous immunization and gave a higher percentage of positive reactions. At the age of 6 and over, this difference was found to disappear; a condition that probably may be explained by the fact that children at this age begin to attend school, where all groups are subjected to equal conditions. As soon as children reach the age of adolescence, if their living conditions are good, they show a quick decrease of percentage of the positive reaction, while others who are deprived of good living conditions show only a slight decrease from 32.6 to 30 percent. Apparently, persons subjected to bad living conditions are more liable to get sick. Among 867 children with positive and combined Dick reactions, there have been only seven cases of scarlet fever; so far all of them showed a negative Dick reaction after their recovery. Among 1,620 children with negative and pseudonegative reactions, there has been no case of scarlet fever.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

SPECIAL PERTUSSIS VACCINE.—A pertussis bacillus vaccine (New and Nonofficial Remedies, 1925, p. 353) marketed in 5 cc. vials. Cutter Laboratory, Berkeley, California.

COCO-QUININE.—Each 100 cc. contains quinine sulphate 2.19 Gm. (10 grains per fluidounce), suspended in a syrup flavored with chocolate, yerba santa and vanillin, and containing sodium benzoate, 0.18 Gm. per 100 cc. and alcohol, 4 percent. Eli Lilly & Co., Indianapolis.

CONCENTRATED CULTURE OF BACILLUS ACIDOPHILUS.—P. D. L.—A milk culture of *Bacillus acidophilus* supplied in vials containing 8 cc. It contains not less than 300 million viable organisms (*B. acidophilus*) per cc. at the time of sale. For a discussion of actions and uses, see Lactic Acid-Producing Organisms and Preparations (New and Nonofficial Remedies, 1925, p. 191). Physicians Diagnostic Laboratories, Berkeley, California.—(*Jour. A. M. A.*, Jan. 2, 1926, p. 37).

SCARLET FEVER STREPTOCOCCUS ANTITOXIN CONCENTRATED.—A scarlet fever streptococcus antitoxin (*Jour. A. M. A.*, May 2, 1925, p. 1338) prepared by the method of Drs. Dick by license of the Scarlet Fever Committee, Inc. It is marketed in packages of one syringe containing 6 cc. (prophylactic dose) and in packages of one syringe containing 12 cc. (therapeutic dose). E. R. Squibb & Sons, New York.

SCARLET FEVER IMMUNITY TEST.—The toxin of the hemolytic streptococcus of scarlet fever is used to determine those persons who are susceptible to scarlet fever. The toxin is first standardized on human beings and diluted so that 0.1 cc. represents a skin test dose. The test dose is injected intracutaneously on the forearm and the degree of susceptibility is determined at the end of from twenty-two to twenty-four hours. The toxin is used also for active immunization. For this purpose it is injected subcutaneously at weekly intervals; from three to five doses of increasing strength are given.

SCARLET FEVER STREPTOCOCCUS TOXIN FOR DICK TEST-SQUIBB.—It is prepared by the method of Drs. Dick by license of the Scarlet Fever Committee, Inc. Marketed in packages of one vial containing sufficient toxin for ten tests; in packages of one vial containing sufficient toxin for 100 tests. E. R. Squibb & Sons, New York.

SCARLET FEVER STREPTOCOCCUS TOXIN-SQUIBB.—It is prepared by the method of Drs. Dick by license of the Scarlet Fever Committee, Inc. Marketed in packages of five vials of toxin containing increasing doses; in packages of fifty vials, representing ten immunizations. E. R. Squibb & Sons, New York.

SULPHARSPHENAMINE-MALLINCKRODT.—A brand of sulpharsphenamine (New and Nonofficial Remedies, 1925, p. 55). It is marketed in ampules containing, respectively, 0.1, 0.2, 0.3, 0.4, 0.5 and 0.6 Gm. Mallinckrodt Chemical Works, St. Louis.—(*Jour. A. M. A.*, Jan. 16, 1926, p. 199).

POLLEN EXTRACTS-ARLCO.—In addition to the products listed in New and Nonofficial Remedies, 1925, p. 288, the following have been accepted: Acacia (Scap.) Pollen Extract-Arlco; Alfalfa Pollen Extract-Arlco; Ash Pollen Extract-Arlco; Box Elder Pollen Extract-Arlco; Burning Bush Pollen Extract-Arlco; California Walnut (Black) Pollen Extract-Arlco; Cocklebur Pollen Extract-Arlco; Cosmos Pollen Extract-Arlco; Fleabane (Common) Pollen Extract-Arlco; Goose Foot Pollen Extract-Arlco; Hemp Pollen Extract-Arlco; Indian Rice Pollen Extract-Arlco; Indian Wormwood Pollen Extract-Arlco; Live Oak Pollen Extract-Arlco; Marsh Elder Pollen Extract-Arlco; Meadow Fescue Pollen Extract-Arlco; Mugwort Pollen Extract-Arlco; Oat Grass Pollen Extract-Arlco; Olive Pollen Extract-Arlco; Pine Pollen

Extract-Arlco; Plantain Pollen Extract-Arlco; Prairie Sage Pollen Extract-Arlco; Poplar Pollen Extract-Arlco; Privet Pollen Extract-Arlco; Red Fescue Pollen Extract-Arlco; Rye Grass Pollen Extract-Arlco; Slender Ragweed Pollen Extract-Arlco; Sweet Clover Pollen Extract-Arlco; Sweet Vernal Grass Pollen Extract-Arlco; Sycamore Pollen Extract-Arlco; Thistle Pollen Extract-Arlco; Velvet Grass Pollen Extract-Arlco; Western Cottonwood Pollen Extract-Arlco; Western Ragweed (Giant) Pollen Extract-Arlco; Winter Fat Pollen Extract-Arlco; Yellow Daisy Pollen Extract-Arlco. Arlington Chemical Co., Yonkers, New York.

POLLEN EXTRACTS-CUTTER.—Liquids obtained by extracting the dried pollen of plants. For a discussion of the actions and uses, see *Allergic Protein Preparations* (New and Nonofficial Remedies, 1925, p. 278). Pollen Extracts-Cutter are used both for diagnosis and treatment. They are marketed in capillary tubes and in packages of five vials representing graduated concentrations. The following preparations have been accepted: Annual Salt Bush Pollen Extract-Cutter; Arizona Ash Pollen Extract-Cutter; Bermuda Grass Pollen Extract-Cutter; Black Walnut Pollen Extract-Cutter; Canary Grass Pollen Extract-Cutter; Careless Weed Pollen Extract-Cutter; Coast Sagebrush Pollen Extract-Cutter; Cocklebur Pollen Extract-Cutter; Common Ragweed Pollen Extract-Cutter; Cottonwood Pollen Extract-Cutter; False Ragweed Pollen Extract-Cutter; Giant Ragweed Pollen Extract-Cutter; Johnson Grass Pollen Extract-Cutter; June Grass Pollen Extract-Cutter; Lamb's Quarters Pollen Extract-Cutter; Live Oak Pollen Extract-Cutter; Marsh Elder Pollen Extract-Cutter; Mugwort Pollen Extract-Cutter; Olive Pollen Extract-Cutter; Orchard Grass Pollen Extract-Cutter; Plantain Pollen Extract-Cutter; Rabbit Bush Pollen Extract-Cutter; Red Root Pigweed Pollen Extract-Cutter; Red Top Pollen Extract-Cutter; Russian Thistle Pollen Extract-Cutter; Rye Grass Pollen Extract-Cutter; Sagebrush Pollen Extract-Cutter; Shadscale Pollen Extract-Cutter; Sheep Sorrel Pollen Extract-Cutter; Timothy Pollen Extract-Cutter; Velvet Grass Pollen Extract-Cutter; Western Ragweed Pollen Extract-Cutter; White Oak Pollen Extract-Cutter; Wild Oat Pollen Extract-Cutter; Yellow Dock Pollen Extract-Cutter. Cutter Laboratory, Berkeley, California.

CONCENTRATED POLLEN EXTRACTS-SWAN-MYERS.—In addition to the products listed in *Journal A. M. A.*, May 30, 1925, p. 1634, the following has been accepted: Mixed Ragweed Concentrated Pollen Extract-Swan-Myers. Swan-Myers Co., Indianapolis.

PROTEIN EXTRACTS DIAGNOSTIC-P. D. & Co.—In addition to the products listed in *New and Nonofficial Remedies*, 1925, p. 289, the following have been accepted: Aster Pollen Protein Extract Diagnostic-P. D. & Co.; Barnyard Grass Pollen Protein Extract Diagnostic-P. D. & Co.; Bermuda Grass Pollen Protein Extract Diagnostic-P. D. & Co.; Burweed Marsh Elder Pollen Protein Extract Diagnostic-P. D. & Co.; Chestnut Pollen Protein Extract Diagnostic-P. D. & Co.; Cocklebur Pollen Protein Extract Diagnostic-P. D. & Co.; Common Ragweed Pollen Protein Extract Diagnostic-P. D. & Co.; Corn Pollen Protein Extract Diagnostic-P. D. & Co.; Cosmos Pollen Protein Extract Diagnostic-P. D. & Co.; Crab Grass Pollen Protein Extract Diagnostic-P. D. & Co.; Dahlia Pollen Protein Extract Diagnostic-P. D. & Co.; Dandelion Pollen Protein Extract Diagnostic-P. D. & Co.; Halberd-Leaved Orache Pollen Protein Extract Diagnostic-P. D. & Co.; Giant Ragweed Pollen Protein Extract Diagnostic-P. D. & Co.; Indian Hair Tonic Pollen Protein Extract Diagnostic-P. D. & Co.; Johnson Grass Pollen Protein Extract Diagnostic-P. D. & Co.; June Grass Pollen Protein Extract Diagnostic-P. D. & Co.; Maple Pollen Protein Extract Diagnostic-P. D. & Co.; Marigold Pollen Protein Extract Diagnostic-P. D. & Co.; Orchard Grass Pollen Protein Extract Diagnostic-P. D. & Co.; Plantain Pollen Protein Extract Diagnostic-P. D. & Co.; Prairie

Sage Pollen Protein Extract Diagnostic-P. D. & Co.; Rose Pollen Protein Extract Diagnostic-P. D. & Co.; Rough Marsh Elder Pollen Protein Extract Diagnostic-P. D. & Co.; Sage Brush Pollen Protein Extract Diagnostic-P. D. & Co.; Western Ragweed Pollen Protein Extract Diagnostic-P. D. & Co.; Western Waterhemp Pollen Protein Extract Diagnostic-P. D. & Co.; Wheat Pollen Protein Extract Diagnostic-P. D. & Co.; White Clover Pollen Protein Extract Diagnostic-P. D. & Co.; White Goose Foot Pollen Protein Extract Diagnostic-P. D. & Co.; Willow Pollen Protein Extract Diagnostic-P. D. & Co.; Wormwood Sage Pollen Protein Extract Diagnostic-P. D. & Co.; Yarrow Pollen Protein Extract Diagnostic-P. D. & Co.; Yellow Dock Pollen Protein Extract Diagnostic-P. D. & Co. Parke, Davis & Co., Detroit.

PROPAGANDA FOR REFORM

LOESER'S INTRAVENOUS SOLUTION OF CALCIUM CHLORIDE AND LOESER'S INTRAVENOUS SOLUTION OF SODIUM THIOSULPHATE—AN EXPLANATION.—Some time ago the Council reported that Loeser's Intravenous Solution of Calcium Chloride and Loeser's Intravenous Solution of Sodium Thiosulphate had been found ineligible for New and Nonofficial Remedies. The New York Intravenous Laboratory objected to these reports. It particularly resented that part of the heading of these reports which declared the products "Not Accepted" for New and Nonofficial Remedies, because it did not request consideration of these products. Since the firm expressed the belief that readers of the reports may be led to assume that it had requested the Council to consider these preparations, the Council explains that the firm did not take this step.—(*Jour. A. M. A.*, Jan. 16, 1926, p. 217).

SOME MORE MEDICAL FRAUDS.—The postal authorities recently have barred a piece of asthma cure quackery and two lost manhood fakes from the use of the mails. The first is the Asthma-Tab Laboratories, Inc., of Kansas City, Mo., which exploited a product to the public, shown by the A. M. A. Chemical Laboratory to be essentially potassium iodide and arsenic trioxide. The two lost manhood concerns were Hart & Co., which put out a device called the Perfection Developer and B. & V. S. Manufacturing Co., which exploited the "Burt Vacuum Tube."—(*Jour. A. M. A.*, Jan. 16, 1926, p. 218).

MANOLA—HYMOSA—PHYTOLINE—SUCCUS CINERARIA.—"Medical Suggestions" is a pamphlet issued by the Walker Pharmacal Co. and The Manola Co., which apparently are subsidiaries to the Luyties Pharmacal Co., St. Louis. The publication contains articles which are puffs for the products sold by these companies, together with testimonials from physicians who say that they have used them. Manola has been exploited as a "tonic, reconstructive, and tissue builder." It now contains some strychnine and arsenic which takes it out of the class of homeopathic nostrums, but certainly does not justify the promiscuous use which is advocated. Hymosa was found to be essentially a solution of salicylates exploited as a remedy for rheumatism. Phytoline is a preparation of pokeberry juice advertised as a powerful antifat. Succus Cineraria Maritima (Walker) is recommended for use in cataract by the Walker Chemical Co., which in 1916 pleaded guilty to the charge that the claims for this nostrum were false and fraudulent.—(*Jour. A. M. A.*, Jan. 16, 1926, p. 220).

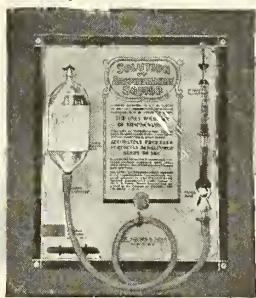
VITALAIT STARTER OMITTED FROM N. N. R.—The Council on Pharmacy and Chemistry announces that Vitalait Starter of the Vitalait Laboratory, Newton Centre, Massachusetts, has been omitted from New and Nonofficial Remedies because the preparation was used as a means of advertising an unacceptable preparation.—(*Jour. A. M. A.*, Jan. 23, 1926, p. 294).

STREPTOCOCCUS VACCINE AND MIXED STAPHYLOCOCCUS-ACNE VACCINE OMITTED FROM N. N. R.—The
(Continued on Adv. Page xx)



*A visit from the Squibb
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Representative*

Physicians find Squibb
Professional Service
Representatives always
ready to be of service to
them in answering in-
quiries concerning any
Squibb Product.



“Doctor Haynes, do you not find it inconvenient to prepare your own solutions of arspenamine?”

“Yes, but I feel obliged to do so as thereby I am assured a safe product for administration.”

“Would it not be a great saving of your *time* and *labor* if you could obtain, *already prepared* and *ready to inject*, a *safe* solution of Arspenamine marketed under the *Squibb Label*?”

“It certainly would. Is there such a product?”

“Why yes, E. R. Squibb & Sons market such a product under the name—

SOLUTION OF ARSPHENAMINE SQUIBB.

“This preparation is a pure, stable and accurately alkalized, aqueous solution of Arspenamine Squibb. The entire process of preparing the solution is conducted under nitrogen or vacuum, thus eliminating any danger of oxidation.

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“SOLUTION OF ARSPHENAMINE SQUIBB is sold in 80-cc. and 120-cc. ampuls containing 0.4 and 0.6 Gm. of Arspenamine respectively. The *apparatus* for injection, consisting of a sterilized needle, tubing and filter bulb, is supplied in a separate package, complete and ready for immediate use.”

E. R. SQUIBB & SONS, NEW YORK
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

TRUTH ABOUT MEDICINES

(Continued from Page 134)

Council on Pharmacy and Chemistry announces that all streptococcus vaccines and all vaccine mixtures containing staphylococci and acne bacilli have been omitted from New and Nonofficial Remedies because experience with these preparations has not established the value which it was hoped they possessed and because recognized experts to whom the Council looks for help have concluded that these preparations have no field of usefulness.—(*Jour. A. M. A.*, Jan. 23, 1926, p. 294).

RESTRICTION OF THE SALE OF BARBITAL (VERONAL).—While no laws have been passed in the United States against the sale of barbitol, the New York sanitary code prohibits its sale without a prescription. In *Useful Drugs* it is stated that many cases of poisoning, some fatal, occur from the indiscriminate use of barbitol by the laity.—(*Jour. A. M. A.*, Jan. 23, 1926, p. 297).

CRYSTALLINE INSULIN.—In a significant address—the sixth annual Pasteur lecture—recently given before the Chicago Institute of Medicine, John J. Abel made public announcement that he had obtained a crystalline form of insulin. The chemical and medical world will await with great interest further developments, particularly the proof of the identification and chemical constitution of the product. The crystallization of the pure principle “insulin,” or a compound of it, may well be considered an outstanding accomplishment in the life of a man already distinguished by his conquests in biochemistry.—(*Jour. A. M. A.*, Jan. 30, 1926, p. 350).

AMOSOL DECLARED A FRAUD.—The Postoffice Department has denied the use of the mails to the concern known as Strong Laboratories, Liberty, Missouri, which was engaged in fraudulent exploitation of a pyorrhea “cure”—Amosol—through the mails. Henry Strong

Smith, one of the proprietors, admitted that the preparation he sold as a new, scientific discovery, the result of years of study and research, was in reality what is commercially known as “stock dip.”—(*Jour. A. M. A.*, Jan. 30, 1926, p. 366).

BURNSIDES PURIFICO.—Purifico comes in the form of three liquids: “Purifico No. 1,” in addition to 10 percent alcohol with sugar and a small amount of glycerin, contains potassium iodide, cinchona alkaloids, piperine and probably senna. “Purifico No. 2” is essentially the same thing, minus the senna. “Purifico No. 3” contains 14 percent alcohol, sugars, valerian, piperine and tannic acid. In 1917 the government prosecuted the promoters of “Purifico” on the charge that the claims that this stuff would cure cancer were fraudulent. They pleaded guilty and were fined. In 1924 the promoters were debarred from the use of the mails. Purifico now appears to be handled by the Chautauqua Chemical Corporation of Ashville, New York, and all direct reference to cancer has been omitted from the advertising. This concern states that it does not claim Purifico a specific and does not guarantee a cure. It is obvious, however, that the claims made for many years that Purifico is a cure for cancer are still being traded on.—(*Jour. A. M. A.*, Jan. 30, 1926, p. 368).

ETHYLENE AND NITROUS OXIDE AS ANESTHETICS.—Ethylene produces greater relaxation than nitrous oxide, also much higher percentages of oxygen can be administered with it and, therefore, cyanosis is not produced as with nitrous oxide. According to New and Nonofficial Remedies the advantages over nitrous oxide are equally rapid but more pleasant induction, satisfactory relaxation without cyanosis or sweating, and rapid recovery. The disadvantages of ethylene are the odor, the inflammability of the gas, and an apparently increasing oozing of the wound during its use.—(*Jour. A. M. A.*, Jan. 30, 1926, p. 368).

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ORIGINAL ARTICLES

ACUTE ALIMENTARY DISTURBANCES IN INFANTS*

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CINCINNATI, OHIO

The things in medicine that interest us are for the most part those which are as yet unsolved. They possess the attraction of mystery and stimulate us to endeavor outside of the frequently humdrum routine of our daily tasks. I would like to discuss with you for a while one of the still confused problems of pediatrics—unsolved, although there have been brought to bear upon it theoretical consideration and the clinical acumen of many men as well as the facilities of the laboratory. The interest in this subject should not be confined to the pediatricist as it concerns the community as well as the individual.

The term *alimentary disturbance* which I have used for this condition is not a very satisfactory one, but it is perhaps as inclusive as any. *Gastro-enteritis*, which is the term most widely employed, is not sufficiently descriptive, as many of these cases have little if any inflammatory involvement of the gastro-intestinal tract. *Summer diarrhea* is a designation which entails the time of occurrence and the chief symptom, but disregards the actual etiology. *Alimentary intoxication* cannot be used as an inclusive term because all of these cases do not lapse into a toxic state. *Cholera infantum* implies a special type in which there is profuse watery diarrhea. The term *acute nourishment disturbance* does not allow for the etiologic factor of bacterial infection. *Dysentery* denotes the type due to a special organism.

It is difficult to estimate the actual frequency of alimentary disturbance. Hospital statistics do not give a correct idea of it in spite of the inclusion of the results of complete study with consequent relatively accurate diagnosis. It is only a small number of cases of gastro-enteritis, usually of the severe type, which reach hospitals. The condition is not reportable in most communities and it is only upon the death of the patient

that a record is made. Most mortality records classify a number of different types of intestinal disturbance under the loose term *diarrheal disease* and it is certain that a number of other diseases which have been incorrectly diagnosed must be included in such statistics. Diarrhea is a symptom common to so many pathologic states in infancy and childhood that mistakes are easily made when too much weight is given to the gastro-intestinal manifestations of such diseases as tuberculous meningitis, respiratory infections and typhoid fever, or such surgical conditions as intussusception and strangulated hernia, or to the gastro-intestinal irritation caused by certain drugs and poisons. The important question is whether acute intestinal disturbance, or gastro-enteritis if you will, is as frequent today as it has been in past years and it is easy to answer this question without quoting the numerous available statistics. It is well known that reduction in infant mortality in general has been accomplished to a large extent by reduction in the incidence of diarrheal diseases. We cannot be complacent because of this. Gastro-enteritis still remains a great menace to infants. Because of the high mortality even a few cases are of serious consequence. Furthermore, while a few years may pass with a comparatively small number of cases in a community there will then come a summer in which there is high morbidity and mortality from the condition. In one large city in this country in two recent years, 21 and 26 percent, respectively, of the deaths in infants under one year of age were due to diarrheal disorders and many statistics show that more babies die each year from such conditions than from any one other cause.

In considering the *etiology* of alimentary disturbances it must be remembered that predisposing and exciting causes are both of importance and that they act in combination. The influence of certain predisposing factors is clear. Age, season, type of feeding, state of health and uncleanliness produce their effects in various obvious ways. The greatest number of serious cases of gastro-enteritis occur in infancy. The frequency of diarrhea in young infants and children as opposed to adults is more apparent than real—it is the consequences of diarrhea in the young which bring it so vividly before the pediatricist.

*Presented before the Section on Medicine of the Indiana State Medical Association at the Marion session, September, 1925.

In infancy and early childhood there is more exclusive milk feeding than in older children. The younger the individual the more readily is the unstable and susceptible organism affected by infection and heat. Summer is the time of most frequent occurrence of diarrheal disorders. Certainly while loose and frequent stools may occur in winter the toxic symptoms of diarrhea seldom develop. The influencing factors in hot weather are infected milk and probably rise in temperature in combination with humidity. These things would favor the growth of micro-organisms in the food and also cause a lowered resistance on the part of the baby—a lowered digestive ability. That bottle-fed babies are more susceptible to diarrheal disorders than breast-fed ones is axiomatic. In many studies it has been noted that exclusively breast-fed infants seldom if ever contract severe diarrhea. The latest study of importance which illustrates the resistance to all types of infection conferred by maternal nursing is that of Woodbury, who found that the mortality among 22,422 infants was about four times greater in the artificially-fed than in the breast-fed ones. At first thought, one would be inclined to lay the entire blame for intestinal infections on dirty and infected milk, but it should be recalled that harmful bacteria may be introduced into the gastro-intestinal tract in other ways than by the ingestion of food. Playthings and fingers are good carriers of bacteria. It is possible also that certain bacteria may be present in the digestive canal and not become pathogenic until an opportunity is offered for their action by lowered resistance in the host. Just as numerous organisms which are potentially pathogenic either in a primary or secondary capacity may be present in the respiratory tract for long periods without causing symptoms, so it would seem that such bacteria as dysentery bacilli may be quiescent inhabitants of the normal intestinal tract until a favorable field offers occasion for their proliferation and the development of their toxic properties. While this suggestion is to a large extent theoretical it is not entirely so. I have, on occasion, found dysentery organisms in the stools of infants who were not suffering at the time or in any recent period from diarrheal disturbance of an acute type.

No unbiased student can insist upon one theory of causation for all cases of gastro-enteritis. Enthusiasts may assert that *chemical injury by food* and its decomposition products explains all the symptoms and end results, or that every case originates in *bacterial infection*, but a study of the facts will not allow the exclusion of either of these causes. It would certainly seem that the symptom diarrhea may be initiated either by food injury or by bacterial infection. One cannot help but think, however, that primary food injury from too much food or too large a percentage of a certain element in the food, while it may be

an initial cause, eventually acts by favoring bacterial proliferation or implantation in the gastro-intestinal tract and that it is this change in bacterial flora which continues the symptoms of gastro-intestinal abnormality. That is, food injury may result in the symptoms vomiting and diarrhea, especially in combination with such predisposing causes as excessive heat and humidity, but that unless abnormal bacterial infection follows, these cases rapidly improve on the institution of such simple therapeutic measures as purgation and diminution in food intake.

The mere presence of certain bacteria in the intestinal discharges even in predominating numbers does not necessarily prove that they are causative factors, although additional evidence is found in the fact that clinical improvement is coincident with a return of the intestinal bacterial flora, to normal. The etiologic significance of certain micro-organisms such as the dysentery bacillus, however, is well established. Other organisms such as the streptococcus, gas bacillus and Morgan's bacillus have been very closely linked to diarrheal conditions and while in some cases they may be secondary invaders, in other cases they seem to be clearly causative. Certain studies have made it appear that normal bacterial inhabitants of the intestinal tract such as the colon bacillus may assume pathogenic properties and initiate diarrhea or assist the action of other bacteria. Davison, as a result of these studies and of his own work on the duodenal contents of healthy infants and those with diarrhea, suggests the following hypothesis: Five factors may be responsible for the production of diarrhea in infants: (1) A primary cause which is at present undetermined but which may be different in individual cases, namely, external heat, fever, infections and overfeeding with an improper diet; (2) a reduction in the activity of the duodenal enzymes and secretions as a result of the primary insult; (3) an accumulation of undigested and unabsorbed food material in the duodenum as a consequence of the reduction in enzymatic activity; (4) the invasion of this food material by organisms of the colon group from the cecum and large intestine, and (5) the fermentation of this food material by these organisms and the formation of irritating end-products which accelerate peristalsis and produce diarrhea. Organisms of the typhoid and paratyphoid group have been found in some of the epidemics of gastro-enteritis, but their presence in any case should exclude it from classification with the ordinary variety of diarrheal disease. Finally, there is a type of gastro-enteritis which is caused by *par-enteral infection* in such diseases as grippe, otitis media, measles and pneumonia and in which the symptoms and end results may be similar to diarrhea caused by specific infection with the dysentery bacillus or other organisms. There are some pediatricists, as has been stated, who do not

accept the theory of bacteriologic causation of diarrhea except when infection has occurred with such definite pathogens as the dysentery bacillus. It is not necessary, however, to prove that the organisms are initially at fault in order to consider them as important because even as secondary invaders they play a role. The fact previously mentioned, that clinical improvement is often coincident with a return of the intestinal bacterial flora to normal, cannot be ignored.

It is certainly very satisfactory to *classify* gastro-enteritis into bacteriologic groups when the question of diet is considered. While terminology means little because it is at best only somewhat descriptive, classification of a diseased condition into different types and into different grades of severity is quite necessary in planning intelligent therapeutics. The anatomic-pathologic classification in which the type of gastro-enteritis is noted according to the part of the bowel involved and the severity of the involvement, is unsatisfactory. Often it is hard to tell clinically whether the pathologic process is present in the large or small bowel although mucus in the stools indicates involvement of the large bowel. There is no symptom, except perhaps blood in the stools, which will distinguish between catarrhal and ulcerative enteritis. Furthermore, it is quite apparent at autopsy that many fatal cases with severe symptoms have little pathologic change in the gastro-intestinal tract. Acute catarrhal enteritis is found, of course, and at times acute ulceration, but it is only in the chronic cases that marked changes are found in the mucous and muscular layers of the bowel. At least it may be said that autopsies have given little help in solving the problems of treatment. If, however, one accepts the *bacteriologic classification* for most of the intestinal disturbances in infancy the diet may be planned definitely. It is then necessary to divide the cases into fermentative and infectious diarrheas and subdivide these again into those in which either acid-forming or putrefactive bacteria predominate in the intestinal tract. In fermentative diarrhea it is presumed that the bacteria responsible for the trouble act upon the intestinal contents only—that is, they are saprophytes; whereas in the infectious type the intestinal mucous membrane is attacked as well and the bacteria are true parasites. If, in addition to such bacteriologic grouping of cases, they are separated again depending on whether or not dehydration and toxic symptoms are present certain indications as to the curative measures to be employed are clear. The accompanying chart will explain these classifications:

Certainly from a clinical standpoint most of the cases can be outlined definitely if some such scheme is followed. Almost any combination is possible. For example, there may be primary bacterial infection which is of the infectious type, acid-forming bacteria predominate, there is dehydration, and toxic symptoms are present; or primary food injury is followed by secondary bacterial infection of the fermentative type, putrefactive organisms predominate and there is dehydration but no toxic symptoms develop, and so on. Except in the mildest cases all of these things should be known in order to carry out treatment which will result in the greatest number of cures. It is only simple cases of food injury which tend to spontaneous recovery.

It is not necessary to discuss at any length the *symptoms* of an uncomplicated case of gastro-enteritis. Vomiting and diarrhea are cardinal symptoms and fever, anorexia and malaise are usually present. A clinical distinction between fermentative and infectious diarrhea is that in the latter type there is blood in the stools, and between involvement of the small and large bowel is in the presence of mucus in the stools when the large bowel is irritated. It is also possible even in a clinical way to surmise whether acid-forming or putrefactive bacteria are at fault. The majority of cases show active proliferation of the acid-forming bacteria in the intestinal tract. These are the ones in which the intestinal discharges are frequent, green and so highly acid (due to the formation of formic, acetic and butyric acids) that the buttocks are scalded. Litmus paper will show the reaction and it should be introduced into the rectum by a glass rod or thermometer so that the acid reaction of the urine will not confuse the result. In the putrefactive form of diarrhea the stools are brown and foul and alkaline in reaction. This testing of the reaction is only a clinical procedure. Litmus is not any too accurate an indicator. A better test, of course, is the estimation of the hydrogen-ion concentration of the stool. Dr. Higgins, working in the Pediatric Department of the University of Cincinnati, has found that the reaction of the stool depends largely on the rate of passage of the intestinal contents and the more rapid this is the greater will be the acidity. Clinically, however, we see diarrheas in which the stools are sufficiently alkaline to be demonstrated by litmus.

When the complication of *dehydration* follows diarrhea there are clinical symptoms such as depressed fontanel, dry and parched mucous membranes, and dry, inelastic skin which may be lifted from the surface of the body in folds that

Primary Food Injury { (a) Cure in a few days by purgation and limitation of diet
(b) Resulting in bacterial infection.

Primary or Secondary	{	Bacterial Infection	{	Fermentative Infectious	{	Acid-forming Putrefactive	{	Dehydration No Dehydration	{	Toxic Not Toxic
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smooth out only after a perceptible interval. If laboratory evidence of dehydration is sought it may be found in the increase in hemoglobin and red blood cells, in increase in the specific gravity of the blood, in increase of the serum protein and decrease in the blood plasma and in change in the refractive index of the blood. Certain quite characteristic symptoms may follow when fluid is not supplied or retained to make up for the water lost from the body. The gastro-intestinal tract, the circulatory system and the cerebro-spinal system contribute to the symptomatology; there are alterations in respiration and a diminution in the output of urine. After a variable period of diarrhea and perhaps of vomiting the infant suddenly becomes desperately ill and toxic. There is a rapid and marked loss of weight and usually rise in temperature. The color is slate-grey and also may be slightly cyanotic. The expression is anxious and later may be vacant and staring, or the upper eyelids may be partly ptosed. The mucous membrane of the lips and mouth is dry and of a cherry-red hue. The pulse is rapid and of poor volume, the hands and feet are cold and clammy. In the alteration of the respiratory rate and rhythm usually observed the breathing becomes rapid and shallow or it may become deep and sighing—typical of hyperpnea. Great restlessness and irritability are followed by stupor and coma and at times convulsive seizures which are terminal symptoms. These are the symptoms which are characteristic of the condition often called *acute intestinal intoxication*.

There are certain *predisposing causes for this toxic state*. It almost invariably follows only after vomiting or diarrhea or diminution in fluid intake—that is, something which leads to dehydration of the tissues. It is much more common in the summer during the heat of which there is increased water loss from the body. A rise in external temperature leads to increased water elimination by the skin and lungs and the loss in this way may be great. It has been shown that a rise in external temperature from 20° C. to 26° C. may lead to 600 percent increase in water loss from the body (Langstein-Meyer). Artificially-fed infants who have had long continued difficulties in digestion or who have been improperly fed are more susceptible and it is notorious that infants who have been overfed with carbohydrate for long periods of time are especially liable to the development of dehydration when diarrhea supervenes. Balcar, Sansum and Wood-yatt have suggested that the body water exists in two forms: first, free and uncombined, and second, in combination with colloids. If this is true it may well be that in the hydremic tissues of these flabby infants the water is in large part uncombined and thus easily lost. The sudden and marked loss of weight with diarrhea can only be explained by water loss. Finkelstein and others have classified infants into two groups—hydrosta-

ble and hydrolabile. Hydrostable infants would retain water under conditions in which hydrolabile infants would easily lose it from the tissues. Whether or not one accepts such a characteristic as an inherent tendency of the organism it can readily be conceived that the tissues of an infant who has been receiving large amounts of carbohydrate would be hydrolabile and quickly yield or part with water. It is not necessary to discuss the chemical reasons for this.

To find out the *actual causes of this toxic state* is not merely a matter of academic interest. Without a knowledge of the underlying disturbance of metabolism which brings about these symptoms it is hardly possible for the clinician to institute therapeutic measures which will be helpful. As previously has been pointed out one who has done many necropsies on infants dying of acute intestinal intoxication cannot help but be impressed with the hopelessness of explaining the symptoms on the basis of pathologic anatomy. Marriott states the situation, "The infant as an organic whole must be considered. The time has passed when we can center our attention exclusively on the alimentary tract and allow the infant to die of a curable derangement of the intermediary metabolism."

Two theories have been offered to account for these symptoms. It has been supposed by some investigators that a *toxic substance* may be responsible. It has been found that extracts of the intestinal mucous membrane taken from infants dying of acute intestinal intoxication when injected into animals produce symptoms resembling the severe toxic condition in infants. Injection of portal blood also causes marked toxic symptoms while systemic blood is only slightly toxic (Boyd). Protein cleavage products, histamin-like in nature, which are toxic in very small amounts, have been found in the blood of infants suffering from acute intestinal intoxication (Schloss, Kohn, Mellanby) and these substances when administered to animals cause shock, vomiting, diarrhea, respiratory coma, and death. All of the clinical picture of intestinal intoxication is not produced. Marriott calls attention to the fact that there is no desiccation or increase in the protein content of the blood in these animals. It might well be, however, that in infants, following diarrhea and dehydration, there is an absorption of toxic bodies from the intestinal tract and that these cause some of the symptoms. Clinically there is a type of acute intestinal disturbance which strongly suggests that the symptoms may be due to the action of a toxic substance. These cases are seen usually in the summer in older infants or children in whom, within a few hours following the ingestion of some indigestible material such as over-ripe fruit, there develop high fever, convulsions, and coma. These symptoms arise before dehydration has taken place and even before diarrhea has occurred. The acuteness of the onset would make

one think of the possibility of the toxic substance having been formed in the food material before ingestion rather than in the intestinal tract after ingestion—a postulation which would exclude this condition from the category of true intestinal intoxication of the type under discussion.

Usually, however, toxic symptoms follow only after a period of vomiting and diarrhea with consequent dehydration. As has been stated it is under conditions in which great water loss from the body occurs that such symptoms develop. Very much the same kind of toxic manifestations may be seen in pathologic states in which dehydration results from other causes than diarrhea. As examples may be mentioned certain cases of pneumonia and pyelitis in which little fluid is taken, or pyloric stenosis and intestinal obstruction in which most of the fluid taken is vomited. Not only is the clinical appearance in these conditions similar in certain respects to acute intestinal intoxication but study shows that they correspond in other particulars. Thus in most of them there is diminished urinary output and an increase in the nonprotein nitrogen and urea nitrogen of the blood. The analogy cannot be completed, however, as there are points of difference in blood chlorids and carbon dioxid combining power of the plasma and the like. Nevertheless, the resemblance has been sufficient to lead to the thought that it may be dehydration *per se* which accounts for most if not all of the symptoms and several investigations which have been made in recent years (Chapin and Pease) (Schloss and Stetson) (Minsk and Sauer) (Schloss) (Schwartz and Kohn) have in large part tended to support such a theory. The method of study pursued has involved determination of the blood concentration by finding its specific gravity, its total solids and its corpuscular volume; determination of kidney function by noting the nonprotein nitrogen constituents of the blood, the amount of urine secreted, the phthalein elimination by the kidney and the histologic examination of the kidney after death, determination of acidosis by estimation of the carbon dioxid tension of the alveolar air, the carbon dioxid capacity of the blood plasma, the alkali reserve of the blood serum, the combining power of hemoglobin with oxygen, the high ammonia coefficient of the urine and the amount of alkali required to alter the reaction of the urine.

Different students have had somewhat similar results which may be illustrated by the findings in some cases which I have had under observation in collaboration with Dr. Leon Jonas and which have been previously reported in the *American Journal of the Medical Sciences*, 1925, CLXIX, 236. Our own studies were made on thirty-five patients, all of whom showed clinical evidence of dehydration. In some there were marked toxic symptoms, in others these symptoms were milder in degree and in still others a toxic was not in

evidence. By toxic symptoms I mean those previously described in this paper.

TABLE I.

Case No.	Urea N, mg. per 100 cc.	Uric ac, mg. per 100 cc.	CO ₂ cap., vol. percent.	pH.	Result.	Remarks.
I	38	6.8	19	...	Died in less than 24 hrs.	First test 10 days before death.
II	144	6.0	16	...	Died in less than 24 hrs.	
III	33	...	...	...	Died in less than 24 hrs.
IV	21	1.8	54	7.37	Died in less than 24 hrs.	No hyperpnea.
V	47	8.8	36	...	Died in less than 2 days	
VI	30	...	39	...	Died in less than 2 days	
VII	59	...	...	...	Died in less than 5 days
VIII	47	...	27	...	Recovered	
IX	82	12.6	26	...	Recovered	
X	17	9.2	26	...	Recovered	

In the group of patients given in Table I, there were several features in common. They were all of the intestinal intoxication type with marked dehydration as evidenced by depressed fontanel and relaxed, inelastic skin. These infants could be classified clinically as very sick and toxic. Albumin was present in the urine of every infant and casts were found in the urine of all but one. In all but one vomiting and diarrhea occurred (more than three stools in twenty-four hours). A leucocytosis greater than could be explained by blood concentration was noted frequently. Usually there was an elevation of temperature. Alteration in the respiratory rate and rhythm amounting to hyperpnea was a feature in all but one infant (Case VII).

Analyzing the findings in this group it is seen that a decided retention of the nonprotein nitrogen constituents in the blood was quite constant, occurring in practically all cases. In one infant (Case III) the urea N was only slightly increased shortly before death, although distinctly increased ten days before that time. In another instance (Case X) the uric acid was decidedly above normal, although the urea N was practically normal. Lowering of the alkali reserve was demonstrable in all but one patient when the CO₂ capacity of the plasma was examined. In an infant suffering from intestinal intoxication (Case IV) the pH was normal. Unfortunately, from this infant there was not enough blood available for other tests.

The blood was examined also in a case of severe intestinal intoxication occurring in a boy of seven years of age who was moderately dehydrated, had slight hyperpnea and high fever. The blood was

taken about eighteen hours before death and the findings were as follows:

CASE NO. XI

Urea N (mg. per 100 cc.).....42
CO₂ (Vol. percent).....40

In an infant suffering from tuberculous meningitis and somewhat dehydrated from lack of fluid but not vomiting or having diarrhea, the findings in the blood taken ten hours before death were as follows:

CASE NO. XII

Urea N (mg. per 100 cc.).....15
Uric Ac. (mg. per 100 cc.).....3.6
CO₂ (Vol. percent).....63
pH of Plasma.....7.36

In another infant presenting the symptoms of intestinal intoxication but found on examination and necropsy to be suffering from acute pulmonary tuberculosis the findings were as follows:

CASE NO. XIII

Urea N (mg. per 100 cc.).....15
Uric Ac. (mg. per 100 cc.).....2.5
CO₂ (Vol. percent).....57

The findings in Case III and the last two cases just cited (XII and XIII) would indicate that increased nonprotein nitrogen in the blood and a lowered CO₂ capacity of the blood plasma are not necessarily present as terminal phenomena.

In Table II is shown a group of infants with intestinal intoxication who, while distinctly dehydrated, were not so sick or toxic as those of the group shown in Table I. In this group there was no clinical evidence of hyperpnea. Diarrhea was usually present and vomiting occurred in most infants, but these symptoms were milder in character than in the first group. Albumin was always found in the urine while casts were present in all but four instances. Slight fever and mild leucocytosis were the rule.

TABLE II

Case No.	Urea N, mg. per 100 cc.	Uric ac. mg. per 100 cc.	CO ₂ cap., vol. percent.	Result.	Remarks.
XIV	25	2.44	35	Died in 5 days	Soda, 50 gr., in the 24 hrs. before death.
XV	28	3.50	25	Died in 5 days	
XVI	23	3.50	25	Died in 5 days	
XVII	14	3.60	52	Died in 6 days	ph of plasma 7.43.
XVIII	26	...	45	Recovered	
XIX	45	5.60	53	Recovered	
XX	16	...	...	Recovered
XXI	12	3.70	39	Recovered	
XXII	30	...	...	Recovered
XXIII	22	...	54	Recovered	
XXIV	12	3.60	49	Recovered	
XXV	27	...	53	Recovered	

In analyzing the findings of the infants noted in this table it was found that while the non-protein nitrogen retention in the blood, as demonstrated by urea N determinations, was present in all but four infants it was less than in the more toxic patients of the first group. There was a decided lowering of the CO₂ capacity of the plasma in only two infants; three other infants showing a slight lowering of the CO₂ capacity. The 33 percent mortality of this group contrasts sharply with the 70 percent mortality of the more toxic group.

TABLE III

Case No.	Urea N, mg. per 100 cc.	Uric Ac, mg. per 100 cc.	CO ₂ cap., vol. percent.	pH.	Result.	Remarks.
XXVI	12	1.7	Died in 20 days	Sod. bicarb., 60 gr., each day for 4 days before test; pyelitis.
XXVII	17	2.1	66	...	Recovered	
XXVIII	11	1.0	59	...	Recovered	Exam., July 16, 1923. Exam., July 18, 1923. Exam., July 31, 1923. Convalescent intestinal intoxication.
XXIX	22	2.1	48	...	Recovered	
XXX	19	4.8	7.37	...	Recovered	
XXXI	15	4.8	68	7.39	Recovered	
	15	4.0	69	7.39	...	
	12	3.4	53	Pyloric stenosis; operation later.
XXXII	10	3.2	67	7.47	Recovered	
XXXIII	10	...	...	...	Recovered
XXXIV	19	...	...	...	Recovered
XXXV	12	2.1	...	...	Recovered

The patients whose examinations are noted in Table III had clinical evidence of dehydration, but were not toxic nor hyperpneic at the time that their blood was examined. None of these infants vomited and only two (XXVII and XXXII) had diarrhea. A trace of albumin was found in the urine of all but one infant, but casts were present in only four of the specimens examined. There was an elevation of temperature in two infants (Cases XXVIII and XXXII). All these cases were diagnosed malnutrition (athrepsia) except in Case XXVII, where dehydration was probably due to a pyelitis; in Case XXXII, which was one of convalescent intestinal intoxication and in Case XXXV, where dehydration was dependent upon pyloric stenosis. (This last case did not present vomiting as a feature at the time of examination because of the frequent gastric lavage.)

An analysis of Table III shows that, although a few cases had an increase in the nonprotein nitrogen of the blood, the rise was slight. In no case was definite acidosis demonstrated by lowered CO₂ capacity of the plasma or by determination of its pH. Recovery occurred in all but one case.

In Table IV is shown a group of patients on whom the phthalein elimination by the kidneys

TABLE IV

Phenolsulphonephthalein Test (Phthalein Estimated on Catheterized Specimen at End of Two Hours.)
(Dunning Colorimeter.)

Case No.	Urine amount in 24 hrs., cc.	Phthalein per- cent, 2 hrs.	Albumin.	Casts.	Urea N, mg. per 100 cc.	Uric ac., mg. per 100 cc.	CO ₂ cap., vol. percent.	Dehydration.	Diagnosis.	Result.
XV		10			28			++	Int. intox.	Died.
XXV	98	10	+	+	27			++	Int. intox.	Recovered.
XIX		15		0	45	5.6	53	+	Int. intox.	Recovered.
XXXV	74	15	++	0	12	2.1		++	Pylo. sten.	Recovered.
VIII		30	++	+	47		27	++	Int. intox.	Recovered.
XVI		40	+	+	23	3.5	25	++	Int. intox.	Died.
				++						
				++						
XXVI	210	40	++	+	12	1.7		+	Athrepsia	Died.
XXVIII	308	50	+	0	11	1.0	59	+	Athrepsia	Recovered.

was determined. Its decrease corresponded fairly well to the severity of the toxic symptoms. The number of cases is too small to justify conclusions.

Table V shows six of our patients in whom the acid-base equilibrium was determined by examination of the pH and CO₂ capacity of the plasma. In three of the infants (Cases XXX, XXXI and XXXII) there were no toxic symptoms although definite dehydration was present. Case XII was an infant with tuberculous meningitis who was moribund at the time of examination. Case XXIII was an infant convalescing from intestinal intoxication who was still having diarrhea and who was somewhat sick and restless. The blood urea N in this infant was slightly elevated. Case IV was an infant with typical intestinal intoxication who died in less than twenty-four hours after having several convulsive seizures. The temperature was 106.4 F. at the time of removal of blood. It was unfortunate that from this infant sufficient blood was not available to do the other tests. We were not surprised to find a normal acid-base equilibrium in these six infants.

In ten of the cases a pathological study of the kidneys was possible. In most instances this revealed little besides cloudy swelling.

The clinical examination of the urine in our cases gave little information of value. Albumin and casts were quite constantly present in the severe toxic cases. These, however, usually had fever, and albumin and casts are such a common finding in the urine in any febrile disturbance in infancy that their appearance probably has little significance.

The conclusions which may be drawn from these studies and an analysis of the results of others are that in infants who had clinical evidence of dehydration the determination of the blood-urea nitrogen, uric acid and the carbon-dioxid of the blood plasma showed different values, depending upon whether or not the infants were suffering from toxic symptoms and hyperpnea.

If no toxic symptoms were observed the blood nonprotein nitrogen constituents were practically normal. If moderate toxic symptoms were present there usually was a moderate increase of non-protein constituents, but if the patient showed

TABLE V

Hydrogen-Ion Concentration of Blood Plasma.

Case No.	pH.	CO ₂ cap., vol. percent.	Urea N, mg. per 100 cc.	Uric ac., mg. per 100 cc.	Dehydration.	Toxic.	Remarks.	Result.	Diagnosis.
XXX	7.37		19	4.8	++	0	Athrepsia	Recovered	Moribund.
XII	7.36	63	15	3.6	++		Tb. men.	Died	
XXXI	7.39	68	15	4.8	++	0	Athrepsia	Recovered	
	7.36	69	15	4.0	+				Convalescent.
XXXII	7.47	67	10	3.2	++	0	Int. intox.	Recovered	
XXIII	7.43	54	22		+	+	Int. intox.	Recovered	
IV	7.37				+	++	Int. intox.	Died	

distinct evidence of toxic symptoms the blood urea nitrogen and uric acid usually were decidedly increased over normal although the increase was neither consistent enough nor great enough to indicate that uremia was a primary cause of the fatal termination.

A decrease in the carbon-dioxid capacity of the blood plasma was found when the dehydrated infants showed clinical evidence of hyperpnea. In other infants in whom hyperpnea was not noticeable, but who were moderately toxic and whose blood usually contained an increase in nonprotein nitrogen constituents, the plasma showed a diminished carbon-dioxid capacity in some instances. Usually, however, the carbon-dioxid capacity of the plasma was normal when there was no increase in the respiratory rate and depth.

The pH of the blood plasma was normal in five dehydrated infants who did not show a decrease in the carbon-dioxid capacity of the blood plasma. In one severely toxic infant with hyperpnea the pH was within normal limits.

The results of the study of the pH and the carbon-dioxid of the plasma would indicate that the alkali reserve was usually greatly diminished before death. However, since in several infants this did not occur and since in several with equally low alkali reserve, recovery followed, it would seem that the acidosis is an accompanying phenomenon and not a primary cause of either the condition or its fatal termination.

The phenolsulphonephthalein elimination by the kidney corresponded to the severity of the toxic symptoms.

Histologic examination of the kidneys of ten infants who came to necropsy showed little evidence of pathology except slight cloudy swelling. This would furnish additional proof that the retention of blood urea nitrogen and uric acid was not due to nephritis, but apparently to dehydration in combination perhaps with the fever and toxemia.

While it cannot be said then that definite proof has been given of the underlying cause of this toxic state, enough work has been done to show that dehydration sometimes plays a large part in the symptomatology. Howland and Marriott and Schloss have suggested that the acidosis following dehydration may be due to the fact that the greatly diminished urinary output causes functional inactivity of the kidney with the result that there is diminished acid excretion and consequent retention of acid phosphate. This probably accounts for only part of the acidosis present. Ketosis can occur at times. Evidence has recently been presented by Clausen that lactic acid may also play a part in some of these cases.

The *treatment* of these intestinal disturbances and their associated toxic states illustrates the status of many problems in medicine. While searching for the truth about a diseased condition

we do not need to neglect the individual patient. We must not wait for a final solution before expecting that rational therapeutic methods can be carried out.

The happiest solution of the problem of gastro-enteritis lies in prevention and the most important point to be made in prevention is in the institution and maintenance of breast-feeding. Much work has been and is being done along this line, but there still remains room for more consistent efforts on the part of the profession in general. When breast-feeding becomes universal gastro-enteritis will cease to become a problem.

If, for any reason, artificial feeding must be instituted it is the duty of the physician to see that only clean milk is used and that the infant's intake is not too great in total quantity or over-balanced in one or more of its ingredients. Cleanliness is much the most important consideration in artificial infant feeding. Everyone who has much to do with the nutrition of early life recognizes with what remarkable success infants tolerate poorly balanced food for long periods of time. There are a few simple rules for artificial feeding in summer which will conform to correct principles and which will apply to the average case. Use only clean milk within a short time after its production; boil this milk; use whole milk dilutions or mixtures without very high fat content; give only one and a half or at most two ounces of milk per pound of body weight per day; give sugar in a quantity which will not exceed six or seven percent of the mixture (or, to state this in another way, one-tenth of an ounce of sugar per pound of body weight per day), and last but not least, supply plenty of fluid. I realize that there may not be general agreement with some of these principles, but time will not permit the elucidation of the laboratory and clinical facts which serve as arguments for such a method of feeding. In older infants and children cleanliness of food and avoidance of over-feeding are as important as in younger infants. It should be mentioned that certain types of acid milk as recommended by Faber, Marriott, Hess and Dunham, in which the buffer value of the mixtures approaches that of mother's milk and in which bacterial proliferation is inhibited, may have a distinct value in the prophylaxis of diarrheal conditions.

Other predisposing causes of gastro-enteritis, such as overcrowding and poor hygiene, are subject to preventive measures. Even such factors as climatic conditions can be modified. For example, the avoidance of clothing so heavy that it interferes with proper heat radiation has much to do with minimizing the effects of heat and humidity.

The actual treatment of gastro-enteritis, once it is established, must be divided into the mild beginning cases and the later cases with toxic symptoms. *Purgation* is a logical initial proce-

dures which will rid the intestinal tract of offending material. Active purgation is no more to be recommended as routine treatment, however, than is digitalis to be given in every case of heart disease. If the case is seen late when diarrhea already has swept the intestinal tract free of its contents, active purgation only increases dehydration and its dangers. From the beginning every effort should be made to keep up *fluid intake*. Vomiting, while interfering with the attempt, does not contraindicate the administration of fluid by mouth as there is reason to believe that fluid given in this way is more efficacious than when injected parenterally. *Gastric and colonic lavage* may be good therapeutic measures in the beginning of an attack of diarrhea. If vomiting is a noticeable feature of the case one or two washings of the stomach with normal saline solution, or five percent sodium bicarbonate solution, are helpful. Colonic lavage may be done several times when the temperature is high and there is considerable offending material in the bowel. It is rarely necessary to continue very long with colonic irrigation and it should be done cautiously, if at all, when there is blood in the stool. *Drugs* are to be used for several purposes in gastro-enteritis: for purgation; to check diarrhea; for stimulation; to combat acidosis; as intestinal antiseptics; for the relief of symptoms such, for example, as pain and restlessness. The emptying of the intestinal tract by purgative drugs has already been mentioned. In giving drugs to combat diarrhea one should remember that frequent bowel movements, certainly in the beginning of a gastro-intestinal upset, act as an eliminative measure. It has been pointed out that when there is fever and the digestive canal contains offending material, diarrhea is to be encouraged, but that it may continue and cease to be beneficial. Frequent watery stools lead to a fluid loss which results in dehydration of the infant. This is the time to try such remedies as bismuth (subgallate or subcarbonate) or chalk in large doses, and if these drugs do not have the desired effect, one should not hesitate to use opium in sufficiently large doses to diminish the bowel movements to a reasonable number. For stimulation, digitalis, strychnin, atropine, caffeine, adrenalin and camphor are indicated at times. That disputed drug alcohol may be of value. Intestinal antiseptics are probably useless in the doses in which they may be given. Abdominal pain and restlessness are best combated by measures other than drugs. The restlessness due to toxemia is relieved when the toxemia is overcome. Occasionally, quiet is so urgently needed that a small dose of morphine should be given hypodermatically. General hygienic measures are of great importance and the mother should always be instructed about them. The baby's surroundings, fresh air, avoidance of chilling or of too heavy clothing, bathing and sponging

are matters which should be under the supervision of the physician just as much as the administration of drugs or the prescribing of the diet.

It is unfortunate that the feeding of every case of gastro-enteritis cannot be managed in the same way. One may obtain good results by altering the type of food according to the type of bacteria which predominate in the intestinal tract. The diet so regulated seems to cause quicker return to normal than any plan which disregards the intestinal bacterial flora. As has been suggested the predominating type of bacteria in the intestinal discharges should be determined in a clinical way by the characteristics of the stools and the reaction. If one will then remember that the acid-forming bacteria thrive upon carbohydrates and the putrefactive upon protein the dietary indications are at least theoretically clear. If the acid-forming group is at fault, then the patient must be fed food high in protein and low in carbohydrate; if the putrefactive group is the trouble maker, then the food must be high in carbohydrate and low in protein. Such a diet would discourage the growth of the causative group, but encourage the growth of the antagonistic group.

Vaccines and serotherapy have been used in the treatment of certain forms of gastro-enteritis, especially in those due to the dysentery bacillus, but the beneficial effect seems to be slight.

Time will not permit a discussion of the value of the *bacterially fermented milks* in diarrheal conditions. It is a clinical impression that their good effect is dependent upon their content of lactic acid as much as upon their bacterial content. Good results are also obtained when such milks are given boiled or when sweet milk, to which lactic acid has been added, is given. It has also seemed to me that the widely used acidophilus milk may aggravate the diarrhea when acid-forming bacteria have already proliferated in preponderant numbers in the intestinal tract. That such extraneous bacteria as the Bulgarian bacillus are implanted in the intestinal tract is, as far as I know, a disproved theory. It is an interesting fact that Metchnikoff, the disciple of the Bulgarian bacillus, never did any work which proved his contention that this organism was implanted in the intestinal tract of man and the studies of his pupils are very inconclusive. Later work does not give countenance to the implantation theory (Hull and Rettger) (Herter and Kendell) (Rake) (Mitchell and Lewis).

When dehydration exists, vigorous methods must be adopted to supply fluid. The giving of fluid by mouth is often useless because vomiting causes its expulsion. When introduced by rectum, fluid will not be retained if diarrhea is present. Moreover, if the fluid given by mouth or rectum is absorbed, the absorption may be too slow for the urgent needs of the economy which exist at this time. *Hypodermoclysis* is a painful

procedure and only a limited amount of fluid may be given in this way. *Intravenous injection* of fluid is not a simple operation nor is it devoid of danger and it does not lend itself to frequent repetition. Many of the disadvantages of administering fluid by other methods are obviated in the intraperitoneal route recommended by Dr. Blackfan.

In some studies which are now being carried out in the Department of Pediatrics of the University of Cincinnati it seems possible to prove in some cases that the blood increases in viscosity before there is increase in the nitrogenous constituents of the blood or decrease in the output of urine. This would be an additional argument for supplying fluid and supplying it early.

The *treatment of acidosis* in intestinal intoxication differs little from the treatment of acidosis in general. It is important to reiterate in this connection the fact that the acidosis of diarrheal conditions is probably dependent to a large extent upon dehydration and that if marked dehydration is not allowed to take place, or, if present, is combated by proper means, acidosis will not occur. If acidosis of a sufficient degree to cause the clinical symptom hyperpnea is present, sodium bicarbonate may be given by mouth or intravenously. Whenever possible the administration of soda should be checked by a study of the alkali reserve. In any event it should not be given after the urine becomes alkaline. It is easily possible to give too much soda and cause an alkalosis which may institute the symptoms of tetany. There are some who would discard its use, but I believe it has its place if properly employed. It has been aptly said that sodium bicarbonate has the same relation to acidosis that cold packs have to temperature, it serves to keep the patient alive until other measures which require time are effective (Chapin and Pease).

In closing may I say that I have tried to give the most logical explanation of causes and symptoms of gastro-enteritis and the manner in which these things may be applied to therapeutics. The explanation has been incomplete and imperfect, but it does, I believe, conform to the present limit of our knowledge*.

DISCUSSION

NETTIE B. POWELL (Marion): I am sure we all have enjoyed Dr. Mitchell's paper, particularly because at present we are having an epidemic of infective diarrhea. Our children are having a great deal of pus in the chest, a great deal of tonsillitis, some eruption of the skin, and a great deal of diarrhea, so this was a very opportune paper for us. I have enjoyed his classification because of the fact that dehydration enters

so largely into these cases. Unless we insist on keeping up the water intake we will lose out with these little patients.

When using artificial food I think we make a mistake in not teaching the mothers about the stools. We get to a place where we cannot give full feedings and must drop back on skimmed milk, or water alone, for two or three feedings to save the diarrheal conditions.

I am very thankful that Dr. Mitchell said not to use too much carbohydrate. I think we are using too much Mellin's Food and water, and too much Karo Corn Syrup and water in these cases with acid stools, and it does not work out as it should. Water alone is what these children need. We should alkalize them thoroughly, but watch the alkaline. Bicarbonate of soda is the old stand-by, but there are other ways in which they can have the alkali and not have the bad effect from the sodium bicarbonate.

I do not like staying away from lavage of the lower bowel in diarrhea. I use a great deal of sherbet and find they will retain this better than the water alone. The whole problem is to retain enough water to keep the babies going.

HOWARD B. METTEL (Indianapolis): Dr. Mitchell has pointed out in a very clear and concise manner the so-called chemical explanation that accounts for these cases of dehydration. I am sorry that time did not permit him to explain the lowering of the blood volume, the lowering of the rate of flow, and other blood changes which I am sure he has incorporated in his paper. For the general practitioner, who sees these cases first, Dr. Mitchell has sounded a warning when he speaks of the associated parenteral infections. I think the most common error in infant feeding is that the food is blamed first for all gastrointestinal infections. The child may have an infection of the middle ear, or a sinus, or a beginning pneumonia, which are the most frequent causes of gastro-intestinal upsets.

Another point Dr. Mitchell mentioned should be taken with some little thought, and that is the early administration of purgatives. I am sure he will admit that this is one of the worst things we have to contend with. The early administration of castor oil is a very common procedure, especially if a child has diarrhea—and it is bad.

Another thing the doctor mentioned was the administration of fluids which, if we understand the chemical processes, is the most important treatment in handling cases of diarrhea.

I do not quite agree with the doctor about sodium bicarbonate. Under expert observation in a hospital, it is all well and good, but I think it well to take a word of warning and first test these infants to determine whether we are dealing with alkalosis or an acidosis. Otherwise we may have an infant who is vomiting a great deal, and

*Since this paper has been written a number of authors have emphasized the importance of upper respiratory tract infection as the cause of intestinal disturbance. Marriott, Jeans, and others have especially implicated the middle ear and mastoid and the nasal sinuses in this respect.

if sodium bicarbonate is administered it will go into tetany. Such a case occurred a few days ago. A child vomited for twenty-four hours, was given sodium bicarbonate, and immediately went into tetany. I think in the home I would prefer the administration of glucose, either with insulin or without.

HOMER WOOLERY (Bloomington): Those of us who give a little special attention to pediatrics so frequently have patients brought to us in about the state of the child in the picture the doctor threw on the screen, and we almost always find that the baby has been taken off the breast by the physician in attendance, usually without the slightest possible excuse. When breast feeding becomes universal these cases will become unknown. Dr. Sedgwick and his co-workers have shown that no baby should be taken off the breast so long as the mother is free of tuberculosis and cancer. I do not hesitate to tell my patients this. Too many babies are brought in simply because the doctor has told them that the breast milk did not agree with them, usually because the child has vomited a few times. They get all sorts of prepared foods and go from bad to worse, and the baby is brought in at six months weighing less than at birth. We should take these things to heart and try to make these mothers nurse their own offspring. If they are not doing this, it is our business to show the mothers how to make the breast produce the life-giving food. It is a crime and a shame to have so many babies lost in Indiana just because the doctor says the breast milk does not agree with them. Dr. Sedgwick has had some wet nurses nurse babies for five years. Breasts that have not functioned for several months have been brought back to the point where the mother could take care of her own baby and two or three others.

HUGO O. PANTZER (Indianapolis): Early in my work in abdominal surgery I became impressed with abdominal anatomical irregularities. These anatomical parts revealed—in large percent—faulty applications of the peritoneum, so markedly were they such that I could not but regard them as being primarily of congenital formation. This finding induced me to go invariably into the history of such cases. I found in large percentage they had been afflicted in their infancy with the symptoms which form the burden of Dr. Mitchell's paper. It stands to reason that a peritoneal fold, which angulates, twists, or puts out of form or position any part or the whole of an organ or organs, would at once disturb the physiology of the parts involved, and then, varying with the degree of involvement might entail early death, or entail suffering until nature has measurably accommodated herself to such condition; and, then yet, this latter class, in time, will develop conditions calling for relief by abdominal operation, namely, such as intestinal obstruction,

ulcer of the stomach or duodenum, appendicitis, neoplasms, etc.

However, as more applicable here, infants, suffering as mentioned, should be considered as being of this nature and, where indicated, operative measures be resorted to at once. A little snipping with scissors here and there in many cases, no doubt, would yield a quick relief, and with little danger by such procedures.

A. GRAEME MITCHELL (Cincinnati, Ohio) (closing): I am very glad that the discussants emphasized the most important thing in the treatment of these babies when they are in a toxic state, namely, water in any way in which it can be introduced and retained. Combined with this principle there should be the idea of withholding anything which will increase dehydration, such as overpurging and the like. Blood studies which have been made on babies with the conditions discussed in the paper have all shown the same thing chemically. Further studies which have not as yet been reported show that the first change in the blood probably is increased viscosity, secondary to which the other changes occur. These things emphasize again the importance of the introduction of water.

I think one can always stir up an argument about the use of sodium bicarbonate. Some think that it should not be used, but I think that it has its place if properly administered and especially with the aid of the laboratory to distinguish between an acidosis and an alkalosis. I do not understand why these children should have subsequent difficulty with the intestinal tract, nor why the condition of gastro-enteritis should predispose to abdominal adhesions. As I stated, necropsies on these patients seldom reveal any anatomical change, such as ulceration. It would, of course, be possible in any adult to obtain a history of a diarrheal condition in childhood, but the connection between that and abdominal adhesions in later life by no means necessarily follows.

REPAIR OF THE PERINEUM*

W. H. WILLIAMS, M.D.

LEBANON

The repair of the perineum is a subject in which all general practitioners, surgeons, and gynecologists should be much interested. The care and protection of the perineum, and the sequella of neglected injuries of it, should increase our desire to more carefully and scientifically give to those seeking relief at our hands the best of our knowledge in store. From the great mass of things to be learned about the human body our profession has been able to cull therefrom many medical and surgical ways and means for the relief of human kind, but the knowledge gained and applied by many in the repair of this particular part of the body to which

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I refer is sometimes void of definite conclusions and plans based upon anatomical truths.

The perineal body has appealed to us in the past, both by teaching and illustration, as a wedge-shaped mass of tissue interposed between the rectal and vaginal openings as a sort of plug or foundation upon the support of which the organs above largely depended, its strength and ability to functionate being reckoned by its thickness. Failure to recognize the functions of the various tissues entering into the compositions of this body has given rise to a certain degree to erroneous notions, and the numerous methods suggested for the repair of injuries received by it.

In order that our comprehension be more complete, and that we get before our minds the proper foundation upon which to base our conclusions, we should remember that, over the inferior opening of the pelvis there is a diaphragm-like mass of muscles chief of which are the sphincter ani, levator ani and superficial perineal muscles. In point of function we find the sphincter ani closes the rectum, the levator ani closes the vagina, and the superficial perineal muscles close the vulva. The levator ani, with which we are most concerned in this paper, has its origin from the posterior and inner surfaces of the pubic arch, passes backward around the lateral vaginal walls and unites posteriorly to the rectal wall with its fellow of the opposite side. It is chief, from the point of support, of all the perineal muscles, and in its I refer is sometimes void of definite conclusions and plans based upon anatomical truths. median line contains the chief pelvic openings—the rectum, vagina and urethra. To the point of non-cleaveage between the vaginal and rectal openings we desire to direct our attention.

From the status of recent opinions and an analysis of the brief anatomical and physiological references, I deem it safe to base our methods and plans of repair of this important structure upon the following conclusions:

(1) The usefulness of the perineum depends upon the integrity of the levator ani muscle and not alone upon bulk.

(2) The chief structure of all the tissues entering into the composition of the perineal body is the levator ani muscle.

(3) If the function of the perineum is at fault, the method of repair must have to do with the restoration to normal of the levator ani muscle. With these as a basis upon which to work we easily should be led to agree upon the fact that, "All injuries of the perineal body should be repaired promptly."

For our consideration then we find these injuries to consist of recent and old lacerations.

Of the recent we may find:

- (1) An external superficial tear.
- (2) A superficial tear from which other tears run up one or both of the vaginal sulci.
- (3) A complete tear involving the sphincter

ani muscle. Of the old tears we find a partial or complete laceration with some of the various sequella.

Any of these injuries are easy of recognition by the only proper method,—inspection and palpation—and should be diagnosed by any general practitioner. Every perineum should be inspected carefully after being subjected to the probable injuries by childbirth, and any injury found repaired. Every digital or instrumental examination of the uterus and appendages should include a careful consideration of the vagina and its outlet. Any treatment that has for its object the relief of any diseased condition of the uterus or appendages should not be expected to give good results if the vaginal outlet is deficient.

If a recent injury is found, restoration to the normal condition should be done at once (unless contra-indications exist) by a plan something after the following: with the patient in the dorsal position crosswise of a bed or on a table in the home, or an operating room, and under the influence of a local or general anesthetic, the injury should be repaired, bearing in mind that the parts, instruments, hands of the operator and immediate surroundings should be made as near surgically clean as possible. As a routine I would suggest that a recent superficial tear should be stitched with a non-absorbable suture, stitching the vaginal part first and the skin last, cleanse thoroughly and apply a dressing. Repeat the cleansing and dressing daily, and remove the stitches the tenth day. Usually the tear will be healed by the time the patient is otherwise able to be up.

In a recent external and internal tear the vaginal portion should be stitched first with deep non-absorbable sutures, with superficial ones between. Close the skin the same. Dress as in the superficial tear. Move the bowels the third day. Remove the stitches the tenth day. Keep the patient in bed two weeks.

If the injury is a recent complete tear the rent in the rectum should be closed with forty day No. 1 cat-gut, being careful to bring the ends of the ruptured sphincter ani muscle together, and reinforce the union with a deep silk-worm gut suture from the outside. The vaginal parts should be closed as before, using care to go deep into the levator ani muscle on both sides, bringing the parts into as nearly normal relations as possible. Close the skin with non-absorbable sutures and dress as before. Move the bowels the seventh day. Remove the external stitches on the tenth day. The patient should be in bed two weeks and should exercise caution for several weeks thereafter.

As to the old tears that come to us for relief, I shall not burden you with detail as to the various methods devised for the repair of the same, but would urge that all of these cases be operated, and whatever plan may be chosen let it have for its chief object the restoration of the integrity of the levator ani muscle. Failure to

accomplish this will result in a continuance of the symptoms for which the case is operated. Though the work may appear well done, the outcome will be, as described by one writer, "That in the efforts to restore the topography of the parts to the semblance of the virgin state the refinements of our art have reached a degree of excellence which compare favorably with the most perfect cosmetic facial surgery, but the cure of symptoms is another thing."

Perhaps the essential elements in the repair of deep perineal injuries could not be more compactly stated than they are in the words of another who said that, "Direct union of the two lateral halves of the pelvic fascia beneath the vagina and anterior to the rectum should be the minimum requirement, no matter where the rupture should be itself superficially in the vagina."

The various superficial "butterfly" and "batwing" denudations, devised and used, largely have failed to comply with the conclusions arrived at in the beginning of this paper, and the solution of the problem has fallen chiefly to those who have had for the central feature of their different plans of work the one prime object—restoration of the levator ani muscle. A very large per cent of physicians and surgeons do this operation, and it is so commonplace that the importance of detail is sometimes overlooked. A correct understanding and appreciation of the normal construction of the pelvic floor is necessary to a successful application of any technique used in the operative procedure.

In the dissections made in the secondary operations preparatory to the suturing of the parts I would advise loosening as little as possible of the vaginal flap as is necessary to properly approximate the underlying tissues, allowing the cut to go as high as possible on either side of the vaginal wall, not to wound the openings of the Bartholinian glands, and then incise the vaginal flap V shape in order to have but one row of sutures in the vaginal mucosa, thereby lessening the liability of leakage of secretions into the tissues below.

The suturing methods and materials used in approximating the tissues in these various types of operations usually vary to a certain extent with different operators, each operator being guided largely by his success or failure in the cases which he has operated. From my own experience and the experience of others I am convinced that:

First, we should, as much as possible, avoid tension on all tissues.

Second, all buried sutures should be cat-gut of slow absorption.

Third, mucous and cutaneous surfaces should be approximated carefully with interrupted sutures of black silk placed sufficiently close as to perfectly close the wound.

Fourth, suturing of deep levator ani and

sphincter ani tears should be reinforced by retention silk-worm sutures passed through from the outside.

The adoption of a certain method of repair is necessary, but no less important is the detail of after-treatment, the neglect of which is responsible for a very large per cent of failures in cases in which the operation has been well done. The presence of urine upon the fresh wound is very detrimental, but its avoidance by catheterization or continuous drainage is no longer recognized as good treatment. Exdouching with warm boric solution poured carefully over the parts after each urination is probably the best method of keeping the parts clean. Applications of various kinds have been used as dressings, but in our experience we have found the use of one per cent solution of mercurochrome superior to any other dressing. This should be applied by introducing into the vagina with a small glass syringe and allowing to flow down over the wound on the outside. This should be applied two to three times each day until the wound is healed. Recognition of these suggestions will reward well the efforts of those doing these operations and having oversight of their after-care.

DISCUSSION

G. LINK (Indianapolis): This is one of the best papers on the subject that I have heard for years. It was a good paper because it got down to basic principles. I cannot add much to it, but I want to emphasize one or two points brought out.

In the repair of old pelvic lacerations I divide the operation into two stages. The first stage is a reproduction of the laceration, and the second stage is the repair of the laceration. Perhaps I had better illustrate that a little. You can take these fanciful operations one by one and they do not fit any particular case because no two women ever suffer exactly the same kind of lacerations; they do not fit any more than a number four shoe fits a number seven foot. It is very easy to cut the scar tissues to see before you the laceration almost as it existed when it was first made, and then to pick up the divided pieces of tissue and unite them edge to edge. That is all there is to the operation. You must bear in mind that muscular tissue will contract and withdraw. You have to reach in and pull out the muscle where it belongs. When you get through with your repair, without ever having taken a stitch in the mucosa, the perineum should stand up in perfect shape. It is the repaired mucosa and skin that keeps out the secretions and urine which might cause infection.

J. H. EBERWEIN (Indianapolis): The method that has been described by Dr. Williams and by Dr. Link is the one I have used in repairing perineums. As far as the mucosa is concerned, one's closure of it will depend on whether you get

the muscle and fascia properly coated and sutured. Then the balance, as Dr. Link said, is a matter of finishing the operation so that the secretions of urine and the vaginal secretion will not contaminate the wound.

R. O. McALEXANDER (Indianapolis): I think Dr. Williams' paper is a most excellent one and the discussion likewise. There is one thing about it that was not mentioned. In the first place, you must restore your perineal body in order to get proper support. There is one thing that must be thought of, and that perhaps does not rightly belong in this discussion, that is, whether the uterus tends to prolapse or retrovert. In this case it does not make any difference how well you repair the perineum your work is going to be destroyed by a uterus that is coming down and is acting as a wedge. If that condition obtains it must be corrected before you can expect to successfully repair your perineal floor. I have been fortunate enough to recognize that early in my surgical experience and correct it before repairing the perineum.

There is another thing Dr. Williams spoke of and I might say this, in my opinion every surgeon is a law unto himself as to how he does these cases. Every man who does surgery must have surgical judgment enough and know enough about his own business to be able to adopt his own methods and to adapt them to a particular case.

In reference to suture material, I was taught to use non absorbable suture material. I had a great deal of my teaching under the celebrated teacher, Joseph Price. His teaching was to use non absorbable material in the repair of the perineum. I now use chromic catgut and forget about it. I never have to take it out, and I get results. I did not see any very good results after using non-absorbable material.

M. E. KLINGER (Garrett): This subject has come very close to home. It is seldom I have heard such a very good paper and such appropriate discussion. Dr. Williams did not expound any new theories as to how the repair should be made, and he has given a good deal of latitude to the one making the repair. I think one should adopt a method of repair that has given a good result and stick to it. I have never changed my method of repair. After making a number of repairs I have never had a single failure in getting a good perineum. I shall not change my technic. I simply build a perineum out of the levator ani muscle and use non-absorbable sutures. I seldom see a perineum repair for a week after I make it. I pay little attention to the urine, and seldom wash it out, and I have never had a repair break down on account of infection. I do not know whether wiping off with iodine helps. In recent years I have used chromic catgut.

M. F. BOULDEN (Frankfort): This paper was quite interesting to me. I have been coming to

these meetings of the Surgical Section for twenty years, and have heard each man discuss his methods in various operation procedures. It is very interesting to me to hear men give their own original ideas which they have applied to certain surgical conditions instead of giving the ideas of others. I can think of Dr. Eastman bringing out his method in aneurysms, and of Dr. Porter being interested in a particular method in goitre surgery, and then of Dr. Williams having his particular method of repair of perineums. I think if every man in the Section will take note of his work, however small it may be, and keep accurate records of the work and a history of patients, and then would come to these meetings and give his experiences it would be a great addition to our knowledge.

G. D. MARSHALL (Kokomo): It is conceded that the object of this operation is to restore the function of the levator ani muscle, and whatever method is used lies with the individual surgeon. There is one thing that we have noticed and that is that women do not suffer from lacerations of the perineum until ten or twelve years after, and not until the levator ani muscle has lost its tone do they complain of any symptoms. Personally I make a flap between the vagina and rectum in the septum, and denude the levator ani muscle. I devised some little instruments to facilitate my work. One is a little double tenaculum, seven inches long, to pick up the levator ani muscle. After you have dissected up your flap you can palpate the levator ani muscle with your finger and by grasping it with these little tenaculi, one on each side, you can put the cut edges together and see what you have. I put in a single suture of forty-day catgut and approximate as high as necessary. Before putting the suture in the levator ani muscle I pass the suture through the deep flap. I start in at the top and bring it out at the bottom and leave that there with the needle on. Then I approximate the levator ani; I then take a subcutaneous suture in the flap, closing the floor with the subcutaneous suture so that there is a purse-string suture around the levator ani. The hematoma that will form in the depth of the wound is usually what causes failure of the operation. By doing that you eliminate all space there, and in that way you get very much better results. These little tenaculi I think are a distinct advantage in seeing what you are getting. I feel they are quite an asset in performing this operation.

W. U. KENNEDY (Newcastle): The crux of the whole situation is centered on those cases of laceration of the sphincter. All of you have known many women of mature age who have had lacerated perineum with absolutely no trouble. As pointed out by one of the discussants, the question of primary importance is where is the uterus; does it come down. When the uterus starts to

come down it brings the bladder with it, and then you get a prolapse of the bladder and the woman's troubles begin. As long as the uterus stays up, the bladder ordinarily will stay up. To have any operation on the perineum considered successful in its final result it must include some sort of a method of holding the cervix backward and upward. Many years ago Pryor recognized this fact and devised a little operation which amounted to nothing more than a denudation behind the cervix and putting in a wad of gauze. He recognized that the cicatricial deposit would keep the cervix firmly fixed. It does not interfere with the cervix in pregnancy.

ELI JONES (Hammond): It seems to me that one of the important things is to know your anatomy and to replace the anatomy as it was before the laceration occurred. As I understood Dr. Williams, after repairing the vaginal mucous membrane then he repairs the muscular tissue. Nothing was mentioned about the uro-genital fascia which is one of the most important parts of the repair of the perineum after suturing the muscular tissue. We all know that a suture placed around a muscle is very apt to tear out. Frequently you have a split in the levator ani muscle laterally which it is necessary to sew up. The principle is to put it back as it was before the laceration occurred.

W. H. WILLIAMS (closing): In the first place the idea of this paper was not to really describe any method of doing this operation but only suggest it. It was only to call your attention to the most important structure of the perineum. You take care of it by the method you like best, but be sure that you do it. I think the one prime factor is, are you satisfied with the results you are getting in any given operation. The next thing is this—I remember well hearing Dr. J. B. Murphy say, "If you are doing a thing in a certain way and you are getting results, do not change; it does not make any difference how the other fellow is doing it." If I am using non-absorbable sutures and I am getting results and you are using absorbable sutures and you are getting results, why change. The thing is to be sure you are satisfied with the things you are doing. It does not make any difference whether this method of denudation is the one you are using or not. If it satisfied me and satisfies the patient there is no reason to change.

One or two of the discussants referred to the position of the uterus in these cases. That is usually the result or sequelæ. I said in my paper that we should operate all these cases and restore the perineum, that is, before we get these very severe sequelæ, if we can get the consent of the patient to have the work done. That did not enter into the subject of this paper.

THE INSULIN TREATMENT OF DIABETES

G. W. McCASKEY, M.D.

FORT WAYNE

The purpose of this paper is to record briefly a few clinical observations and discuss a few of the questions concerning diabetes. One of the first questions to be decided in any given case is whether or not insulin is to be used in its treatment. There are undoubtedly many cases which can be managed very well by very simple and very mild dietetic regulation and without insulin. Everything connected with the case must be taken into account in reaching a decision. The mere presence of a glycosuria at one time or its absence at another does not, standing by itself, prove anything. It is only after a critical study of the patient's general condition and especially the blood sugar phenomena that an intelligent decision can be reached. If subnutrition and its attendant phenomena are present in any striking degree, carbohydrate nutrition undoubtedly will require speeding up, which always can be done best by at least the temporary aid of insulin; furthermore, if the carbohydrate tolerance is so low as to make the patient's dietetic regime at all burdensome then an effort should be made to increase the patient's carbohydrate tolerance by resting the pancreas, and by furnishing an artificial supply of pancreatic hormone.

It seems to be well established that the progressive character of many cases of diabetes has heretofore been due to an overstrain of the pancreas, by too large a demand on its functional capacity. This leads first to hydropic degeneration of the beta cells of the islands of Langerhans, and later to their complete disappearance. Of course this degeneration and consequent lowering of functional capacity of the pancreas constitutes the real essence of diabetes mellitus.

Undoubtedly there are other causes aside from overstrain and which perhaps commonly precede it, such as infections general or focal. It is perfectly obvious that a thorough and systematic search should be made for all focal infections, and whenever possible they should be removed completely. It is quite likely that these pyogenic toxins in many cases act primarily upon these pancreatic cells just as they act upon renal or cardiac anatomical elements. In most cases the damage does not go far enough to demonstrably impair functional capacity. Whether this latter result happens or not will depend among other things upon the virulence, quantity and selective action of the toxins and the congenital surplus of pancreatic cells with which the patient has been endowed. The well-known individual variations of carbohydrate tolerance are thus explained and when, from whatever cause, this tolerance gets below the level of the convenient and satisfactory dietary the conditions are right for the beginning of diabetes mellitus, and the factor of overstrain

will come into operation every time the tolerance is exceeded and rapidly as in acute cases or slowly over years of time as in the very chronic cases pancreatic function becomes impaired to a degree which means progressive severe diabetes with all its perils, unless the individual can perform the almost humanly impossible task of living during the remainder of his life within his limit of carbohydrate tolerance. Such was the situation before the advent of insulin.

Now what are the main considerations in determining the question as to whether or not to use insulin in any given case?

Insulin Treatment. The presence or absence of glycosuria, the usual criterion, can be accepted only after determining both the carbohydrate intake and the renal glucose threshold. If the renal glucose threshold is very low, say 140 to 160 milligrams of sugar per 100 cc. of blood, all sugar above this level filtering through the kidneys into the urine, then it is perfectly evident that insulin can do no good, unless the quantity of glucose excreted is so large that the pancreas as well as the kidneys is involved. On the other hand we are finding repeatedly cases in which there is no glycosuria, but a blood sugar reaching for example 200 to 400 milligrams after each carbohydrate meal with only an occasional or even no glycosuria; then the problem passes at once to the blood, and the urine can be practically ignored. The general clinical condition of the patient is a factor which will have to be considered along with the laboratory findings. More or less marked subnutrition with or without glycosuria as in the second case herewith reported may exist over a period of years with progressive loss of weight which is not accounted for by actual loss of sugar through the urine, as the patients may have, as in this case, only an occasional slight glycosuria.

In general I would say that every case with a high fasting blood sugar should receive at least tentative treatment with insulin in a carefully supervised effort to lower the blood sugar and arrest or limit the overstrain of the pancreas. It is apparently sometimes true that these patients do badly when an effort is made to force down the hyperglycemia too rapidly. In some of these cases, however, I have found that a smaller dosage of insulin and a very moderate lowering of the carbohydrate intake over a considerable period of time will accomplish the object gradually without any violent disturbances of the carbohydrate adjustment.

I think it may be stated as a general proposition that no case of persistent hyperglycemia should be neglected without an effort to correct this condition by appropriate insulin treatment.

Routine Initial Clinical Procedure. In attempting to formulate a routine initial procedure applicable to most cases of diabetes it has seemed

to me that the first point to decide was a definite standard of daily carbohydrate intake together with a small dose of insulin if indicated, which should vary with the severity of the case. Fifty grams of carbohydrates for the twenty-four hours seemed to me to be a reasonable initial allowance during this preliminary observation and which may well be invariable. This is divided about as follows: Ten grams perhaps in the form of an orange for breakfast, thirty grams for the principal meal either noon or evening, or the forty grams can be given at once and no carbohydrates allowed for the third meal. One-half hour before the largest intake of carbohydrates a small dose of insulin, say from three to five units, is given, the urinary and blood sugar being carefully determined. The glycosuria, if present, usually will disappear promptly and the blood sugar level will almost certainly show a slight fall. Subsequent insulin medication will be governed entirely by the type of case. Subsequent doses ranging from five to twenty-five or more units, depending namely on the rapidity of the drop of the blood sugar level. If no untoward symptoms develop this regime with gradually increasing doses of insulin, is continued until the fasting blood sugar is reduced to about 110 milligrams or thereabouts while the blood sugar following the thirty or forty grams of carbohydrates is determined in about two and one-half or three hours and should remain well below 200. Urine, of course, is examined each day, although the sugar will in most cases disappear within one or two days and not return.

Renal Glucose Threshold. It is desirable to get fairly accurate data concerning the renal glucose threshold. If glycosuria is present at the outset an approximate estimation of this threshold may be made by determining the blood sugar level at the time when the glycosuria disappears, otherwise the following technique is recommended: Enough glucose, ordinarily about 50 to 100 grams, may be given to produce a glycosuria, the urine being obtained at fifteen minute intervals and immediately tested for sugar and the blood sugar estimated when the first trace of sugar is found. The blood sugar concentration after the sugar first filters through the kidneys represents the renal glucose threshold. Its importance in the clinical study of diabetes is well illustrated in the second case herewith reported.

Is Diabetes Mellitus a Curable Disease? The answer to this question is that it is perhaps never more than relatively curable although in some cases the restoration of pancreatic function becomes so complete that with ordinary care a patient may be considered practically cured. The whole question hinges on the extent and severity of the organic changes in the parenchyma of the pancreas. Many cases will only be safe so long as they continue carbohydrate restriction in a degree indicated by the individual case, or continue to take small doses of insulin at frequent, perhaps

daily intervals. There is no longer any doubt that reconstruction of the pancreatic cells is entirely possible within certain limits. This has been definitely proven by experimental work on animals although the difficulties encountered in getting anatomical evidence in the human subject are perfectly obvious. A very striking case along this line has been recently reported by Boyd and Robinson* in which a case of juvenile diabetes was clinically cured in about a year by insulin treatment. He was then accidentally killed. The pancreas was obtained and placed in a fixing agent within an hour, and a thorough microscopic examination made at the University of Toronto and presented what was regarded as conclusive evidence of extensive regeneration of the peripheral layers of the pancreatic cells. The evidence is not as yet forthcoming that this can occur in chronic adult cases although the clinical cure of some of my patients seems to indicate its probability. The most that we can do is to rest the pancreas by reducing its work to a minimum by supplying an exogenous hormone, in quantities sufficient to take from the pancreas all except the very lightest work and keep this up long enough to completely restore mere functional depression from toxic or other causes and give ample opportunity for regeneration of anatomical elements. This should be carried out for a year or longer before deciding in what degree the case is curable. The most that can be expected is such an increase in carbohydrate tolerance as will leave a reasonable margin of safety which should be carefully limited and the patient forbidden to exceed such limits.

CASE 1. *Illustrating routine procedure, also showing recovery from severe diabetes by insulin treatment.* Mr. D., age 51, consulted me November, 1923, with a history of considerable gastrointestinal disturbance and some evidence of myocardial weakness.

An examination revealed six per cent sugar in the urine and 260 milligrams per 100 cc. of blood in the fasting condition. The cholesterol blood content was 300 milligrams per 100 cc. of blood. The blood and urinary examinations were including the blood Wassermann otherwise negative. The patient was suffering marked general debility and nervousness and at that time rather severe dyspnea on exertion.

The patient was placed on 50 grams of carbohydrates with four units of insulin daily. The glycosuria disappeared within twenty-four hours, but the fasting blood sugar remained at 210 or 212 for a number of days, and the insulin was increased to six units, and later to eight or ten units. Daily improvement was rapid. The fasting blood sugar was a little slow in yielding, remaining about 125 milligrams per 100 cc. for three or four weeks, then dropping to 105, and finally below 100, and once to 85.

This patient made an apparently uneventful and complete recovery and the insulin was continued in somewhat diminishing doses for about eight months when it was stopped, excepting now and then, when the patient had indulged rather heavily in carbohydrates.

In about one and one-half years from the beginning of the treatment the patient subjected himself to a severe test of carbohydrate tolerance during a prolonged absence from home, taking probably 150 grams of carbohydrates daily for a couple of weeks. Upon his return he came to see me in something of a panic, but the urine was entirely free from sugar and the fasting blood sugar close to 100.

This case seems to offer very strong clinical evidence of a complete recovery in a case of rather severe adult diabetes. Whether or not there was actual regeneration of the beta cells of the pancreas, or whether it was simply a restoration of a seriously depressed functional state of the cells is of course impossible to do more than conjecture. The clinical fact remains, however, that the patient made what is apparently a complete recovery under insulin treatment and has remained well as far as diabetes is concerned and without any burdensome dietetic restrictions for nearly a year and a half.

CASE 11. *Illustrating clinical results of very high renal glucose threshold (350) with a very rare moderate glycosuria.*

This patient, Mr. S., a merchant, age 54, was in excellent health until about thirteen years ago when without apparent cause he began to lose his "grip" on things, with very moderate but still definite loss of weight, strength and business capacity. The loss in weight each year had averaged about two pounds with a total of twenty-five pounds. Both physical and mental endurance were very poor and he had reached the point at which, along both these lines, his incapacity was becoming serious and constantly increasing. This was strikingly noticeable to his family and business associates. Three or four times during this period slight glycosuria was found and a slight carbohydrate restriction advised until its disappearance which would occur promptly. The patient himself made very frequent examinations of the urine for sugar. On examination he presented the appearance of rather poorly nourished, thin faced, slightly pale individual. No symptoms other than those above described could be elicited. Physical examination was entirely negative. Heart normal in outline and size with no bruits and no arrhythmia. Pulse rate 66, blood pressure systolic 125, diastolic 80. Abdomen was entirely negative, no tenderness, no masses anywhere, no edema of legs or elsewhere. Examination of urine gave the following results:

Twenty-four-hour collection of 1,500 cc.

Twelve-hour day 1,140 cc., 12-hour night 360 cc.

**J. A. M. A.* Editorial, April 18, 1925.)

Total solids for day, 38.4 grams. Total solids for night, 19.9 grams. Urea for 12-hour day, 11.4 grams, for night, 3.6 grams. There was no sugar, albumen, bile nor indican. Microscopical examination entirely negative, no leukocytes or crystals of any kind could be found. Blood examination—hemoglobin 80%. Red cells 4,600,000. White cells 7,600 differential P 60%, L.L. 12%, S.L. 25%. Eos 1%, Trans 2%. The Wassermann was entirely negative. Cholesterol 260 milligrams per 100 c.c. of blood. CO₂ combining power of the Plasma (Van Slykes) 60 volumes per cent.

The fasting blood sugar at the time of my first examination was 200 milligrams per 100 c.c. To determine the renal glucose threshold he was given 75 grams of glucose, and when the first trace of sugar in the urine was found the blood sugar had reached 350 milligrams per 100 c.c. of blood. Here then was a case in which serious disturbances of nutrition had been going on for years undoubtedly in the presence of latent diabetic condition which rarely showed in the urine.

This patient was given about 7 units of insulin and 50 grams of carbohydrates daily and was advised to eat liberally of proteins and fats without any definite quantity being ordered.

From the patient's viewpoint the most serious aspect of this case was the loss of weight and strength, and I decided to at once test out the capacity of his nutritional mechanism by very liberal diet with restricted carbohydrates. He was urged to eat eggs, meat and butter very freely. He came back in one week having gained five pounds in weight—more than twice his average yearly loss for a dozen years. Obviously he could not adjust himself to this rapid increase of nutrition, nor was it desirable, although the fasting blood sugar was only 190 and the blood sugar two hours after 50 grams of carbohydrates was only 220—of course without glycosuria, the blood sugar remaining too high. The insulin was increased to 11 units, and in another week to about 14 units, at which time the fasting blood sugar had dropped to 120, the blood sugar two and one-half hours after 50 grams of carbohydrates being 150. In the meantime he had been instructed not to eat excessively of proteins and fats but to gratify his appetite with a reasonable intake of food, keeping the carbohydrates down to about 50 grams. He was ordered to weigh himself about every other day and make an effort to hold his weight about level, increasing fats and proteins if he lost, and reducing them somewhat if there was any material gain. In about two weeks with continual improvement in the diabetic blood phenomena he had lost about two pounds, weight 118. The same general regime was carried out with instructions to eat enough to produce a slight gain of about one-half to one pound a week. His general improvement was remarkable. The demonstration that his weight was absolutely under control and could be increased to any extent that I

thought advisable, undoubtedly played a very large psychical role in his improvement, as it proved to him that he had no serious organic disease outside of this latent diabetic condition which had been inexorably pulling him down for so many years. There was, of course, no pressing necessity for any immediate increase in weight, and I thought he would feel better and do better with a slight increase each week as above indicated, to which his organism could more readily adjust itself until he had made a reasonable gain, at which point he would be advised that his weight should be kept.

As a matter of fact in about three months' time he has been completely restored to business and physical efficiency, the change being conspicuous to everyone who knew him.

It would seem as though the future course of the case on the upward road is practically assured with the care, which this patient is certain to give to himself, and it is quite probable that the capacity of the pancreas will gradually improve with the removal of overstrain and that insulin may be gradually reduced or even entirely suspended. My purpose in presenting a report of this case up to the present moment is to point out the disastrous results which occurred in a case of diabetes without close observation of blood sugar and a scientific regime of diet, etc. I confess that a perfectly clear and satisfactory explanation of the downward trend of this case is not forthcoming, but its essential relationship to the high blood sugar and rather high cholesterol blood content scarcely can be doubted.

SPONGE CONTROL IN THE OPERATING ROOM*

FRANK H. JETT, M.D.
TERRE HAUTE

"Let the records show that the sponges have been counted and found correct." This was the dictation of Dr. J. B. Murphy in the operating room when his clinic was at its height. It certainly shows the respect he had for a lost sponge.

I believe that all of us at times have been worried as to the count of sponges at the finish of an operation. I have been fortunate enough never to have left a sponge, but I can look back upon many instances where this has been my good fortune and not due to any special skill on my part. It could easily have happened by having the right combination of circumstances occurring at a given operation.

There is no doubt that the use of the continuous sponge and using no stick sponges is the safest method. This does us no good, however, when none of us will use them and we put up with the disadvantages which are either real or fancied.

*Presented before the Section on Surgery of the Indiana State Medical Association at the Marion Session, September, 1925.

Nearly all methods of sponge count, if considered in a theoretical way, are perfect; in a practical way, court records show, they all fall down.

In considering the various reason for leaving sponges in the abdomen I do not hesitate to say that the personal factor is the one that is dangerous in all methods of sponge count. When any one person in the operating room can show the sponge count correct when it is not correct, the sponge count is especially dangerous. This danger increases if we deal with inexperienced people and poorly organized operative departments, in the home, in desperate surgical cases, and in surgical accidents such as severe hemorrhage. Not all of the harm in sponge count comes from leaving the sponge in the abdomen. A sponge count reported wrong when it is right occasions a wait in the operating and a search of the abdomen, which is certainly not to the patient's benefit. These searches are sometimes extended when the patient is in bad condition.

In talking with various men over a period of several years, I do not believe I have found a man with any considerable experience who did not know of from one to many cases of sponges left in the abdomen. If we take the court records for it we find there are a great many occurring all the time, and I am thoroughly convinced that not one in five is shown in the court records. There are court records of one case with three hemostats and two sponges left in one abdomen. Sponges have been left in the chest cavity, in gall bladder operations, both inside and outside the gall bladder; they have been left after thyroid operations, prostatectomies, in the rectum, and in most every conceivable place. Sponges have been left with tape attached; sponges have been left where the rule was to put a hemostat on each one; sponges have been left with an iron ring in each sponge. I, personally, know of one case where a doctor left a sponge in his own wife.

In going over the matter thoroughly I am convinced that carelessness plays a small part in the loss of sponges. It may be due to the hurry to save the patient in hemorrhage, in the various surgical accidents, in desperate cases, working in poor light under bad surroundings with poorly trained people, and, last but by no means least, putting the full responsibility for a correct sponge count on some one person. If we go into the court records, however, we will find that the courts do not believe these last statements, and that it is virtually not possible to convince the court or the laity that a sponge can be left in the abdomen except by carelessness.

There is nothing new in my method for sponge control. Attempts have been made to correlate well known safety factors in such a way as to remove the personal equation and throw the responsibility on everyone in the operating room instead of on the wash-up nurse. The surgeon

should take a real interest in the sponge count. His work should be done orderly, trying to use the same number of sponges in the same way in each procedure. There should be a pan on the floor for the surgeon and one for the assistant. Into this should go all sponges so that they can be handled properly by the nurse. Stick sponges are especially dangerous and need a special method of control. In cases where stick sponges cannot be rigidly controlled, they should not be used in a surgical operation.

Going into the question of sponge control I found that there was a real danger which I did not know existed before. That is, that there was no check on a package of sponges to show that they had been through the sterilizer. The diacks sterilizer control shows that the sterilizer has worked perfectly, but this does not mean that the package of sponges when it comes to the operating table has been through the sterilizer. There are various ways that this could happen in an operating room. The maids and orderlies and sometimes other untrained people are in the operating room; even some of the trained people in the operating room may think a package is sterile and put it with the sterile sponges. We, of course, all know the disastrous results that might occur from a rewashed sponge, not sterile, used to wall off in the abdomen.

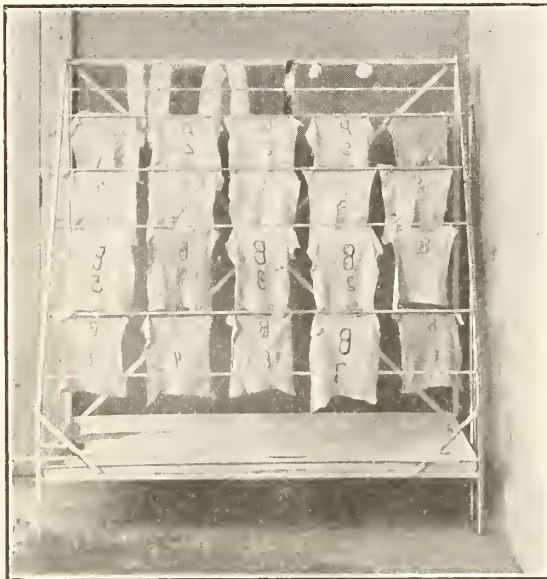
To describe briefly the method of control, the sponges are put up ten in a package. Each sponge is marked in the same manner that hotel linen is marked. First would be A1 to A10; second, B1 to B10; third, C1 to C10, etc., the marking going through the sponge so that it will show the reverse of these. These marks should be made large enough so as to be seen some distance away. The color should always be a fast color, blue or red being perhaps the best.

Stick sponges are sterilized on an ordinary letter file. Of course they should be counted. The packages are controlled as to being through the sterilizer by making small balls of ordinary sealing wax. These can be molded in the old-time bullet mold. This melts at about 260. These are put in an ordinary cotton sponge. This sponge is put in the package. If the package has been through the sterilizer, the sealing wax will melt, turn red and thoroughly incorporate itself with the cotton sponge. If the package has not been through the sterilizer, the sealing wax rolls out hard and in its original condition. Several hundred of these can be made for a dime.

As a rule two packages of sponges, or twenty, are opened for the ordinary laparotomy. These are doubly checked in by going through the sponges as A1, A1 reverse, A2, A2 reverse, A3, A3 reverse, as they are turned up, to ten. These show that there are ten sponges, and especially that there are not eleven. Two sponges cannot be

counted as one, and it eliminates the greatest danger of them all, that the wild sponge is counted in. Sponges are used and then put in the respective pans, one at the feet of the surgeon and one at the feet of his assistant. These sponges are raised in their proper order on any sort of a sponge rack which will show the complete sponge. I have devised a special sponge rack which I shall show you in a lantern slide.

Stick sponges were put on the letter file simply so that the nurse could know just where they were all the time. I have carried out stick sponges on my shoes to the wash-room. We have found a stick sponge out in another room, evidently carried out by a nurse on her feet. I have had three stick sponges that I never did find on count. It



was then apparent to me that two sponges could come to you on a sponge clamp, could go in the abdomen, become unlocked, leaving one in the abdomen. To meet this, I devised a stick sponge clamp which requires two hands to open it, and that cannot be opened any other way except to use both hands. Stick sponges come on this sponge holder, are used, go back to the nurse, and she unlocks this sponge holder over a bowl so that at the finish of the operation she has all the stick sponges either in the bowl or on the letter file. We make it a rule to use five stick sponges to prepare the abdomen. These five sponges are put in a special place on the sponge rack.

When the peritoneum is about to be closed the sponge count is called for. The dirty nurse says she should have certain sponges, not a number of them. To make it simple, she may say she wants A5 and A10 and B5 and B10. All of the other sponges are on the rack. A clean nurse will answer this by saying, "I have A5 and A10." The

surgeon follows this by saying that he has B5 and B10. The count is called correct, and the peritoneum is closed. All sponges go to the rack, and at the finish of the operation a second sponge count is made. The dirty nurse, clean nurse, surgeon, assistant and anesthetist can see on the rack ten sponges A1 to A10 and ten sponges B1 to B10, and five scrub sponges.

In conclusion, I wish to say that I have no such wild idea that this method of sponge control will be adopted by surgeons generally. We are all too original for this; but, if I can convince you that as surgeons you should take an interest in the sponge count—for your nurses will be no more interested than you are—and, if you will take all the precautions that the circumstances under which you are working warrant, I feel that I shall be repaid for the paper. I know that the method is giving me a feeling of security which I have not had since I started major surgery.

DISCUSSION

HOLLACE ROYSTER (Frankfort): I have nothing to suggest concerning the technic of sponge control in the operating room, but there are a few points that I would like to bring out.

Sponges left in the abdomen constitute one of the most deplorable accidents in surgery. As our legal advisers tell us, the sponge is one of the curses of surgery. There have been more malpractice suits result from leaving sponges and from anesthetics, particularly local anesthetics, than from any other condition to which we are subject to suit. Every operator and every clinic has his own technic as to the method of sponge control. Personally I believe that the one continuous sponge is probably the safest method of sponge control and yet it has its defects.

Some of the causes of failure in control of the sponge count in the operating room might be enumerated. First, lack of co-operation of assistants and nurses; second, emergency operations which require quick action; third, changing of assistants and nurses; fourth, hurried operations at night; fifth, lack of help, and sixth, operating within homes. Even if you do place a great deal of dependence upon your sponge count you still find that occasionally there is a sponge left within the abdomen. I believe that these conditions are due in some instances to the fact that one sponge might be torn in two and half of that sponge forgotten. Again, an extra sponge in the bundle might be missed in the counting, or an extra sponge in an emergency might be lost in operating, or some sponge lying upon the abdomen that was not intended for intraperitoneal work might accidentally fall into the abdomen during manipulation. Legally it has been shown by Supreme Court decisions that the nurse is responsible for the control of all sponges. I recently read a Supreme Court decision in which the decision by the judge held that the hospital or nurse,

the nurse being a component of the hospital, was responsible for the disappearance of this abdominal sponge. In five months another court reversed that decision, holding the surgeon responsible for the loss of this sponge. In determining the negligence of the surgeon the court instructs their juries upon several points, and I would like to enumerate these. It must be up to the jury to consider the nature of the operation that this surgeon has performed, the length of time that has been consumed in this operation, that the field was deep in the abdomen, the number of pads or sponges used in this particular operation; that opportunity for displacement or loss of these sponges was due to the rapidity of the operation; the efforts upon the part of the surgeon to minimize the trauma or shock. The findings and evidence must show that the surgeon did not exercise ordinary and reasonable care and skill in the treatment of the patient.

I would like to mention one case in the literature not particularly dealing with sponges but with foreign bodies in the abdomen which I think is very interesting. It was reported by Williams in the *Lancet* of two or three months ago. Twelve years previous to this time the patient was operated for an appendiceal drainage and at the time of this illness for which Williams treated him he developed an acute obstruction. In exploring the abdomen they found a piece of rubber drainage tube, 15 cm. long and 1 cm. in width which had made an opening through the mesocolon and allowed the small bowel to get into this opening and become strangulated. The unusual thing about this case was that the patient was symptomless the entire twelve years after he had his appendiceal drainage.

O. G. PFAFF (Indianapolis): This subject is a very important one. We have tried various methods. Time and again the nurse in charge of the sponge count will fail to tell you whether the count is correct or not. Sometimes the count itself is wrong. Some one will take out a sponge from what seems to be a complete bundle from the sterilizer. I always tell the nurse, "Don't take it for granted that there are twelve because it is certified. Count them yourself. You may find eleven or thirteen." In the clinic once I kept a sponge in my hand and asked the nurse for the count. She said it was "all right," and I asked her if she were positive and then showed her the one I had. It was a mean trick, but it was a lesson to her. In some clinics they have tried the method of having a wire along the side of the table and connecting the sponges with the wire by long tapes.

It may be, after all, that we must come to something like Dr. Jett's plan. If the surgeon himself, the assistant, and the head nurse would look at the chart and see the sponges hanging up

with all the numbers in rotation, it would be fairly good proof that all sponges were accounted for.

I want to thank Dr. Jett for bringing this up. It is very interesting and may prove to be of much value in the solution of a very troublesome problem.

M. R. COMBS (Terre Haute): No one can look at that chart without thinking that it should be a means of solving our difficulty. I used to be a little cocky like some other surgeons. I used to think I did not require a nurse to keep tab on my sponges, that I knew when I put a sponge in and kept the count in my own mind, but as the years advance I have concluded that some method must be devised to keep tab on myself. Very soon after I came to that conclusion I congratulated myself that I opened up two abdomens before the patients left the table and in each case removed a sponge that the nurse insisted was missing. I doubted her, for I still had confidence in my ability to keep track of my sponges. To my own embarrassment I found she was right, and that it is necessary to have the sponge count taken. We always have two nurses count the sponges. Always before closing I ask for the sponge count. In spite of all there will come a day when you will come out short a sponge. You cannot get away from the personal equation, and the mistakes any human will make. This ingenious arrangement is not quite foolproof, and is not absolute. It simply makes it harder to make an error. The ingenious method of the sealing wax struck me. Of course some industrious nurse might think she would put up some sponges and they would get in with the sterile sponges. That might be a very disastrous occurrence and one that is very likely to happen. The only criticism that possibly could be given to Dr. Jett's idea is that it further complicates matters. The simpler we can keep our arrangements, if they are effective, the more general they will be in use. This rack I think rather complicates matters, and it will be a means of not putting it into general use as if it were more simplified and still comparatively foolproof.

W. H. WILLIAMS (Lebanon): These common, everyday things are the things we should be warned about. The suggestion for the use of sealing wax is very unique and I believe that we could all profit by its use very much. I cannot conceive by any way that sponges could be marked so nicely as in that manner. Each man has his way of keeping track of sponges. Some have lost sponges; some have not. As far as I know I have not lost any, though there may be some walking around or some resting in graves, but as far as I know they have never reported. I think we should approach each operation feeling that there is always a first time for doing a thing and that this might be the time when we are going to lose a sponge. It does not make any difference how

difficult an operation is going to be. It does not matter how competent we think our operating room help, it is still possible for the operating room nurse to make a mistake. As Dr. Pfaff calls attention to the counting of sponges, it is easy for the nurse to make that mistake. Instead of twelve being in the bundle as reported there are only eleven or instead of twelve there are thirteen. That does happen. I think there is just one thing that we all can do whether we use any special method of marking or not, and that is to stay away from the small sponges as much as possible; in other words, use your sponges as large as you conveniently can use them. You might call them packs. I have used that plan for many years, and the larger the packs I use the fewer I have to employ in the individual case and the less difficulty I have in keeping count.

J. H. EBERWEIN (Indianapolis): In regard to the cause of leaving sponges, there was mentioned operating in the home. I think there are very few cases that cannot be removed to the hospital for operation. One of the precautions against loss of sponges is to remove the patient to a good hospital. In some hospitals the patient is prepared for operation and what they call squares are put on the patient to be used until the incision is made through the abdominal wall. I think that is a very bad practice because it would be easy to lose one of those small sponges. They should be disposed of immediately and nothing but very large sponges used. Another thing that helps is not to use many sponges. I do not believe in packing six, eight or ten sponges into the abdomen at one time. There are two reasons. One is the liability of losing sponges; another is that it produces more trauma than necessary.

I think sponges should be counted and rechecked. They should be counted before and rechecked, and the same precaution taken afterwards. So far as the technique of using sponges, each man has his own ideas. What is convenient for one is not for another. I think the main secret is to form some kind of plan and then stick to it, and see that all the details are carried out.

H. C. WADSWORTH (Washington): Size is not always protection. I recall one incident. Dr. Miller invited me and a chum of mine one time to see the National League game in Philadelphia. He said when we started out that he wanted to stop at the hospital and open a little abscess. We went with him, and as he worked he suddenly became quiet, and gradually he pulled out a towel marked "St. Louis City Hospital." It was a full size towel, and this woman had worn it for six months without symptoms.

CHARLES STOLTZ (South Bend): I have one method that I find works very well. Everything in surgery goes by fashion. Fashions change in surgery as in other things. Years ago the fashion was to fill the abdomen full of sponges, big and

little. There was no sense to that. I got my training from good old Christian Fenger. He was my god of surgery. I have never left things in the abdomen; I never could afford to. It does happen in the big clinics. Dr. Crone and I recently came in contact with a patient who had been operated in Ann Arbor and a sponge was left in. They took her back and something else happened, they let her drop off the table. Now that is wholesale surgical carelessness. If a man is going to do surgery he has got time to see that his patient is not knocked around like a football. I do not care whether he is in a big clinic or a little clinic he should have enough interest to keep track of his sponges. If he must pack away something it should be a large sponge with a string attached. Dr. Eisendrath of Chicago, is a man who is very confident of his sponges. He does not put them in unless he takes them out himself. One day I saw him operating at Mercy Hospital and the nurse made a great deal of fuss about the sponge count which he disputed, and afterwards they found the sponge. He was correct about the sponge. That is not being cocksure. That is having your mind on your work.

WILLIAM W. BABCOCK (Philadelphia): This subject has struck a very responsive cord. I have experienced that curious sick feeling in the stomach when a nurse has reported a sponge missing.

Last year a group of men came from Baltimore to attend a noted clinic in Philadelphia. They entered the clinic as a wound was being closed and the sponge count being made. A sponge was missing and the visitors spent the hour hearing "How many sponges on the table?" "How many on the floor?" "How many have you?" and returned to Baltimore without having seen a single operation. It so happened that in passing the sponges one had fallen in the pocket of the gown of a nurse.

We have in Philadelphia, just the same as elsewhere, some operators who feel that they personally can keep track of sponges. During a joint meeting of the New York and Philadelphia Obstetrical Societies this year one of these gentlemen said, "I put in a sponge and I take it out; I remember it." He had been criticised by the New York men for sticking sponges in the abdomen in an apparently careless way as he operated. He may have had no trouble, but most of us realize that we cannot depend on ourselves to retrieve all sponges used during an operation.

A friend of mine was sued last year for a little bit of a cigarette drain which had been left in. He had pulled out the cigarette drain and the lower half-inch of rubber cover remained in. The patient drifted home and was seen by the family physician who with great pride pulled out and showed the bit of rubber and the suit followed.

It is interesting "how chickens sometimes come

home to roost" with the doctor who has blazoned his colleagues' failings from the house-tops.

A classmate of mine, Dr. B, was sued in New Jersey for a lost hemostat. That patient had had a hysterectomy by Dr. A nine years before Dr. B operated on her for acute obstruction; and ten years after the first operation, a third operation by Dr. A for supposed stone in the bladder. Dr. A found the point of a hemostat in the woman's bladder, one ring in one loop of bowel, the other ring in a second loop of bowel. Dr. A was very proud of having taken out this hemostatic forceps, and showed it to staff and nurses and visitors with suggestions as to the carelessness of Dr. B. Suit was brought. But it was a defective and peculiar type of forceps, and only one gross had been imported and that by one firm in Philadelphia. This firm had a record of where all those forceps had gone. Most of them had been sold to the hospital where Dr. A operated. None had gone to Dr. B or his hospital. Finally, it was clearly proved that the forceps had been left ten years before during the hysterectomy by Dr. A, who really had been responsible for all of the notoriety of the case. Dr. A tried to clear himself by saying that he did that hysterectomy ten years before without using a single hemostat.

FRANK H. JETT (closing): I had no such wonderful idea when I devised this method of sponge count that it would be adopted generally. We, as surgeons, are all too original for this. I was trying to ease my mind and feel more secure when I left the operating room.

To put no sponges in the abdomen is the best way; the continuous sponge is next best; but when I say that most of us cannot operate without using sponges in the abdomen, and most of us will not use a continuous sponge, some other method must be used. I hope that I have put over the idea that I intended to by writing this paper in that the big thing that causes loss of sponges is the personal element. Each person in the operating room should take the sponge control as a serious thing. The hazard increases when we add various factors such as new nurses in the operating room, poor light, poor anesthesia, operating in the home, strange assistants, etc. The more of these elements that are introduced into a case, the more the surgeon should hold himself directly responsible for the sponge count.

As to the legal side, the courts have held that you can delegate a certain part of your work to your assistants. This does not mean, however, that the surgeon has no responsibility in the sponge control. The sponge control is simply a part of the surgical operation. If the surgeon's method and procedure in the use of the sponges in the operating room should not be in a careful and safe manner, he would still be responsible. If, for instance, Dr. Babcock would go into one of the hospitals here to operate, if he carried out the

sponge count as laid down by the hospital and used the ordinary diligence and care of the institution in which he was working, he would not be responsible, but the hospital would. If he did not do this, the doctor would be responsible and the hospital would be relieved.

I would like again to call attention to the small squares of gauze and stick sponges. If they are not well controlled, they are especially dangerous. I also would like to emphasize the point brought out in the discussion that a large per cent of sponges that are lost are lost by experienced men, men who operate a great deal.

Lost tubes were also spoken of in the discussion. There is a simple way of controlling tubes, which, as we know, are generally lost in the wards and after the patient leaves the operating room. I tie my tubes with a double surgeon's knot, one on each side of the tube. The tubes are made a standard length, and, just before the patient leaves the table, the end of the tube is cut off in an irregular fashion. This is then kept in the operating room. When the tube is removed, it is sent to the operating room, and will be found to fit the irregularly cut end and also be the proper length. If it is removed a part at a time the process can be repeated.

INTRA-ABDOMINAL HERNIAS WITH REPORT OF CASE

LYNN W. ELSTON, M. D.

FORT WAYNE

Intra-abdominal hernias are fortunately rare but very important from a surgical point of view, due to the fact that the initial symptoms of their existence is usually that of an acute intestinal obstruction.

Congenital malformations especially involving the abdominal fossae are responsible for the majority of intestinal herniations. Waldeyer¹, in 1868, primarily described the anatomy of the retroperitoneal fossae and subsequent investigators, especially Trietz², Moynihan³, Lockwood and Rolleston⁴, Desjardins⁵, and Treves⁶ have shown the presence of three large classes, two of which have subdivisions.

The paraduodenal fossae are most commonly the seat of intestinal bowel herniations and are described by Moynihan as being nine in number, five of which commonly seen are the superior duodenal fossae—the inferior duodenal fossae of Landzert, the mesenterico-parietal fossa of Waldeyer and the mesocolic fossa. Of these the inferior duodenal fossa occurs the most often and the superior the next.

The pericecal fossae are four in number, and are described from their locations as the ileocolic, the accessory ileocolic, the ileoappendiceal and the retrocolic fossae.

The intersigmoidal fossa is the only one found in the sigmoid region and when seen is usually at post mortem examination in infants.

The paraduodenal hernias are divided by Copenhaver⁷ into two main groups, right duodenal and left duodenal, the latter of which are relatively more frequent. The left paraduodenal fossa is situated on the left near the ascending portion of the duodenum and is formed by the raising of a fold of the peritoneum by the mesenteric vein. The pouch is directed upward and slightly to the left with the opening pointing downward and to the right. Short⁸ collected seventeen cases from the literature in 1914, making a total of eighty-six, and since then the total has been raised to 101.

Pericecal hernias are not so common as the aforementioned type. One case has been observed in the Mayo Clinic.

Intersigmoidal hernias are also rare. Moynihan has recorded two cases. Coley⁹ reported one in 1909. Krall¹⁰ and Machial¹¹ added two cases in 1911. Murphy¹², Block¹³, Nuzum¹⁴ and Taylor¹⁵ have increased the number to eight.

Herniations through the foramen of Winslow have been recorded in twenty-eight cases, nineteen of which were collected by Corry¹⁶ in 1917. This opening is about 2-3 cm. in diameter, is bounded by the inferior vena cava behind, the duodenum and hepatic vessels below, the caudate lobe of the liver above and the hepatic artery in front, the portal vein and common bile duct being contained in the lesser omentum. The close proximity of these structures make dilatation of the foramen in attempting reduction of such a herniation, especially of strangulated, extremely hazardous.

Diaphragmatic hernia are either congenital or acquired. The congenital hernias in a series of six hundred and thirty-five cases tabulated by Eppinger¹⁷ indicated that their occurrence was most prevalent on the posterior left side, the ratio being 10.5 to 1. This is probably true because of the openings of the aorta, inferior vena cava and oesophagus in the left side and the protecting part played by the liver on the right as a shield. Acquired diaphragmatic hernias are seen mostly as a result of extra-thoracic pressure, and in the late war Bryan¹⁸ reviewed fifty cases which passed through the hospital channels. Twenty-four died soon after the hernia had developed. The presenting symptoms in this class of herniation when acutely developed are severe dyspnea, upper abdominal and usually left thoracic pain with not infrequently symptoms of an accompanying intestinal obstruction. Chronic cases may give no symptoms though usually dyspnea and vomiting occur at irregular intervals. The roentgenograms lend an admirable aid in differential diagnosis.

Intra-abdominal hernias occurring through apertures either congenital or acquired in the mesentery, omentum or ligaments, are also very uncommon, and it is for this reason the case hereinafter described is presented. Downing¹⁹ reported a case in which the small bowel herniated

through a rent in the wall of the larger bowel and was presenting as a tumor mass into the rectum.

Hernias into the broad ligaments of the uterus are recorded in two instances by Fagge²⁰.

The transverse meso-colon, gastrocolic omentum, the great omentum and the lesser omentum each have a few isolated instances of hernias occurring through rent, a total of thirteen being collected by Skort in 1915 from all available literature.

The postoperative intra-abdominal hernias are much more common, the one most frequently seen being through the mesentery of the transverse mesocolon following posterior gastroenterostomy. This has been remedied greatly by the improved technique now employed of suturing the mesocolon to either the stomach or jejunum, which point should never be neglected at the time of operation. The clinical picture of a non-strangulated intra-abdominal hernia through the transverse mesocolon is not unlike those of gastric ulcer.

That herniation can occur through congenital apertures in the mesentery near its root is exemplified by the following case: Miss McM., age sixteen, admitted to the hospital October 2, 1925, being referred by Dr. L. B. Schneider. The family history was essentially negative, both parents and two brothers living and well. There is no history of tuberculosis or cancer in the family. Her past history included measles, whooping cough, mumps and influenza. No accidents or operations. Menstrual history began at the age of thirteen, and except for occasional irregularity, was negative. The patient had had one previous attack of generalized abdominal pain accompanied by nausea and vomiting about four months ago, at which time the onset was sudden. The pain in the abdomen at that time persisted for about twelve hours, after which it suddenly disappeared and she felt apparently well. Upon admission to the hospital she complained of violent generalized abdominal pain, nausea and vomiting. This onset was also sudden and began about fifteen hours before her hospitalization and was noted by her, first, while standing at the home of a friend after having indulged in a few games necessitating a certain amount of physical activity. The pain was cramp-like in character mid-line in the abdomen in the region of the umbilicus and necessitated her removal to her home within fifteen or twenty minutes. Nausea and vomiting developed soon thereafter with rapid distension of the abdomen. No bowel action was present. Enemas were given which resulted in considerable bowel passage, but the pain persisted and assumed general abdominal proportions within two hours. At this time her temperature and respirations were normal. After four hours the pulse rate had reached 120, although temperature and respirations were unchanged. Morphine was given hypodermically, which gave her but temporary relief. The physical examination upon admission was that of a young white girl, sixteen years of age.

weight 112 pounds, who was acutely ill whose essential presenting findings consisted of generalized abdominal tenderness with slight rigidity, with a noticeable increase of deep tenderness over McBurney's point and tympany in the epigastrium. Her pulse was 130, temperature 98.6, respirations 20. Facies anxious alert and pallid. The neck was normal. Chest was of flat type but well formed, lungs had good excursions. Breath sounds were clear throughout. The heart had normal anatomical boundaries, the sounds were rapid and weak, but no valvular defects were noted. The abdomen as described was slightly tympanitic and rigid throughout. There was no dullness in either flank and the bladder was empty. Pelvic examination did not disclose any appreciable pathological changes. The limbs were negative and reflexes were active throughout.

At operation a midline incision was made and a small quantity of bloody colored fluid escaped. A long area of gangrenous bowel protruded through the incision and was delivered with considerable difficulty which being traced to its points of obstruction disclosed a small, evidently congenital aperture, hard and ring-like about as large as a lead pencil present in the root of the mesentery. The bowel which had herniated through this aperture was about seventy-six inches in length and was gangrenous. Attempted reduction of the bowel was impossible through the hernial opening, and began about four inches above the caecal junction and extended toward the jejunum. The mesentery supplying the involved bowel was ligated by multiple interrupted ligatures, the bowel resected and an end to end anastomosis obtained by the use of a Murphy button, which method I chose in an attempt to expediate the operation, as the patient at this time was pulseless and in profound shock. An open tube drain was placed in the pelvis and the abdomen closed. A 1/30 grain strychnine was given hypodermically during the operation. She was treated by supportive measures and after twenty-four hours showed some improvement, after which convalescence was rapid and uneventful. There was only a slight drainage and a fecal fistula did not develop, the entire wound being closed at the end of the fourteenth day. The Murphy button was recovered on the ninth day, and the patient left the hospital November 1 in apparent good health. To date she has regained her normal weight and is following her usual avocation.

The extent of the bowel removed and the fact that the patient uneventfully recovered, having thus far shown no untoward symptoms for her experience, while unusual, is not remarkable, for Bremer²¹, in 1910, removed seventeen feet nine inches of gangrenous bowel in a case of strangulated femoral hernia, the patient surviving the operation and gaining weight.

Storp²², in 1907, in a case of sarcoma of the mesentery, successfully resected sixteen feet nine

inches, the entire ileum and part of the jejunum from a man aged twenty-one.

Watson²³ reviewed the entire literature of extensive resection of the small intestine, analyzing seventy-three cases. In forty-one cases the length resected was between six feet seven inches and nine feet ten inches. In twenty-six cases between nine feet ten inches and thirteen feet two inches; in six cases between fifteen feet eight inches and seventeen feet nine inches. In six of these cases death was due to marasmus. It occurred in from twenty-five days to two and one-half years after the operation, the patient with the greatest resection being the one to die in two and one-half years. A patient with only one-half as much resection died after seven months. In most of the cases with extensive resection, if the patients withstand the operation and recover or escape from the subsequent dangers of peritonitis, they experience no apparent ill effects from it.

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WHAT WE KNOW ABOUT VENTILATION A. C. WILLARD

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A man can live three months without food, three days without water, and three minutes without air.

Hence, our great interest is what constitutes good ventilation and how to get it.

Every one knows that a man must have air to breathe. When at rest, an adult needs about 20 cubic inches for each respiration, and hence, at the rate of 20 to 24 respirations per minute, the air actually taken into the lungs amounts to about 0.25 of a cubic foot per minute, or 15 cubic feet per hour. But the air supply to the lungs is only a small part of the human body's demand for air. The skin must also have a constant supply of air, or, like the child who appeared in the Roman festival covered with gold leaf, life will immediately cease.

The air taken into the lungs gives up, by solution in the blood, its oxygen, which is carried by the blood to the various tissues of the body. The combination of this oxygen with the carbon of the tissues produces, by slow combustion or oxidation, both carbon dioxide and heat. The carbon dioxide is returned through the blood to the lungs and exhaled. The heat developed in the body tissues must maintain the body when at rest at a temperature of about 98° F. if the normal life processes are to continue and the individual is to be physically comfortable.

The temperature controlling "machinery" of the human body is very wonderful and can maintain the body temperature at 98° F. under a wide range of conditions, but this "machinery" operates best, or with the least expenditure of nervous energy, and the individual is the most comfortable when the body is kept surrounded with:

- (1) Air at a temperature of 70° to 68° F. carrying with it
- (2) A reasonable amount of water vapor equivalent to a relative humidity of 30% to 35% for the temperature stated, and
- (3) Air in slow motion, ranging from 150 to 100 feet per minute, over the body of the individual.

If the above conditions cannot be met exactly, it has been found that by observing certain relations between these three factors, sensations of equal comfort may still be secured. For example, if the air temperature is above 70° F., either the relative humidity should be decreased below 30% or the air motion increased above 150 feet per minute. On the other hand, if the air temperature is below 68° F., either the relative humidity should be increased about 35% or the air motion should be decreased below 100 feet per minute.

Elaborate and exhaustive tests in this country by the Research Laboratory of the American Society of Heating and Ventilating Engineers at Pittsburgh, and abroad by Dr. Leonard Hill of England and others, have now definitely confirmed the preceding statements. Hence, in order to secure "good ventilation," which means com-

fortableness of the human beings in the space ventilated, we must do four things:

- (1) Supply a definite amount of clean air for respiration, and the prevention of odor.
- (2) Maintain an air temperature of 70° to 68° F. in the occupied spaces.
- (3) Keep the humidity between 30% and 35% for the temperatures stated in (2).
- (4) Maintain a certain amount of air movement ranging from 150 to 100 feet per minute. This movement need not be steady but may fluctuate both in direction and amount with good results.

No restriction has been placed on the carbon dioxide content of the air which, in the past, was considered the all important item in ventilation.

SPECIAL ARTICLE

NEWS NOTES FROM INDIANA UNIVERSITY

Over five hundred guests were entertained by the Indiana University Training School for Nurses at a benefit card party in the administration section of the James Whitcomb Riley Hospital for Children, March 17th. Proceeds will be used to construct two tennis courts on the university grounds for the use of the nurses in the training school and the Riley and Robert W. Long hospitals.

Twenty-seven young women were accepted as "probationers" by the Indiana University Training School for Nurses and thirty-seven were promoted from the rank of probationer to pupil nurse, March 1st. New students are also received in September of each year, and it is reported that about seventy-five applications for entrance next September have already been received. Owing to limited housing facilities only about thirty-five can be admitted in the fall, it is said. The total enrollment of the nursing school, which is unique in being organized as an integral part of a university, is now 134. Pupil nurses are trained in the two University-operated hospitals, the Robert W. Long and James Whitcomb Riley Hospital for Children.

Hundreds of hospital garments are being made for children in the Riley hospital by the Riley Hospital Cheer Guild, a large organization of Indianapolis women, with affiliated clubs, which has opened a sewing room and equipped it with sewing machines and facilities for preparing hot lunches so that volunteer workers can come and stay all day.

A department of occupational therapy has been opened at the Robert W. Long Hospital, supported by the Junior League, of Indianapolis. The work has been provided at the request of hospital authorities. It is similar to that already being

done at the Riley Hospital, where two graduate aides have taught weaving, basketry and other kinds of occupational therapy tasks, to children who were recommended for such activity by the medical staff. Occupational therapy is rated high as an adjunct to other therapeutic measures. It exercises both mental and physical resources and relieves the tedium and consequent depression caused by the enforced idleness of illness. The care and management of the patient present fewer difficulties, it is said, and convalescence is hastened. There is no expense to the state in connection with this work. The Junior League operates an exchange downtown where children's garments are made and sold, and an annual benefit party is given.

Seventeen out of twenty internships in the Indianapolis city hospital were secured by seniors in the Indiana University School of Medicine who will graduate in June. The positions were open to members of any Class A medical school by competitive examination. Service will begin after graduation, and continue twelve months.

Twenty-one young women have completed post-graduate courses in dietetics in the dietary department of the Indiana University hospitals, and all stepped into positions as hospital dietitians which were waiting for them on completion of the course. Miss Lute Trout, chief dietitian and director of the course, reports. Six are trained at a time, three being admitted each three months. They must have degrees from accredited colleges or universities, in home economics. The post-graduate course of six months consists of practical work in the planning and preparation of diets, and supervision of food service. Medical lectures and clinics are attended.

In commenting on the recent gift of the Ball brothers of Muncie to the Riley Hospital, conditional on the raising of \$1,000,000 by other citizens, Robert E. Neff, administrator of the Indiana University hospitals, said, "The modern and efficient hospital now does not consider its plant complete until it has provided itself with adequate and comfortable facilities for its nurses. The James Whitcomb Riley Hospital for Children and other university hospitals, through this fine gift, will be enabled to provide a nurses' home and training school unexcelled by any other institution in the country. The facilities will contribute in a very large degree to the work which the Riley Hospital is doing in transforming physically handicapped Hoosier children into able-bodied and useful citizens."

A post-graduate course of eighteen hours in internal medicine is being given at Crawfordsville by members of the Indiana University School of

Medicine faculty at the request of the Montgomery County Medical Society, meetings being held on alternate weeks. Courses in surgery have been given this year at Terre Haute, Columbus, Madison and Seymour.

F. R. Henshaw, D. D. S., dean of the Indiana University School of Dentistry, will not be disappointed if the enrollment in the freshman class next September is a little smaller than usual. At that time applicants for admission must have completed one year of pre-dental work of college grade in chemistry, biology, English and electives totaling thirty semester hours. The present freshman class is the last to be admitted directly after graduation from high school. The regular dental course is four years, and the enrollment this semester is 376.

Further extension of the service of Indiana University through use of the facilities provided by James Whitcomb Riley Hospital for Children is seen in a course of pediatrical nursing offered to nurses in training in other schools in Indiana by a plan of affiliation. The courses given here, as announced by Mrs. Ethel P. Clarke, R. N., director of the Training School for Nurses, will require four months to complete, and may be counted toward graduation in the training school from which the nurse comes. At least eighteen months of training must have been completed, and operating room experience is recommended, before admission to the specialized course here. Practical work will be given in pediatrics, orthopedics, technique in communicable diseases, diet and milk laboratory, and mechano-physiotherapy clinic. Theoretical instruction will be given in pediatrics, orthopedics, dietetics and social and professional aspects of nursing. The affiliated students will receive room, board, laundry and textbooks and live in the nurses' quarters here. Nurses given this specialized training in a children's hospital where the best methods of treatment known are used, and many different types of diseases and physical disability are handled, should be of great service to the medical men of the state, it is believed.

Preliminary announcement of a new test for acetonuria, simple enough for routine practice, and avoiding false positives given by the Gunning test, and Lange modification of the Legal test, as worked out in the laboratories at Bloomington, was made by Robert E. Lyons, Ph. D., head of the Department of Chemistry of Indiana University before a recent medical school seminar here. Full details will be published soon, Dr. Lyons said.

Dr. Charles P. Emerson, dean of the Indiana University School of Medicine, has been elected a trustee of the American Congress of Hospital

Social Work. Nine trustees organized the work of the congress, which has a membership, by associations, of twenty-two national associations having some relation to hospital work. Included in the membership of the congress are the United

States Public Health Service, the American Medical Association, the American Nursing Association, the American Hospital Association and the hospital service organizations of the United States army and navy. C. R. MACDONNELL.

PHYSICAL THERAPY

Morris Fishbein, Chicago (*Journal A. M. A.*, Oct. 3, 1925), says that the application of heat and cold, rubbing and massage, and the use of water and of sunlight are as old as man himself. Massage, too, was practiced in the earliest times. Anthropologists and ethnologists have described the practice as it exists among savage peoples today, and accounts are found in primitive medical texts. It is repeatedly referred to in the folklore of all nations, particularly in the tales of the Arabian Nights. The ancient Egyptians, the Greeks and the Romans were firm believers in the health-giving powers of the sun's rays. There were sun rooms in the homes of all the well-to-do Romans, not glassed-in sun-porches facing north, as in apartments today, but large central spaces, open to the sky and to the sun itself. Humphris tells that the first use of electricity in healing took place in the time of Tiberius, some twenty years after the death of Christ, when a physician named Scribonius Largus made use of the Raja torpedo-fish for rheumatism and for headaches. The electric ray-fish and the electric eel of Brazil are said to be able to convey a considerable shock. From the primitive observations of the past have arisen remarkably complicated devices that have made necessary increased knowledge by the physician of physics and of chemistry, of physiology and of biology, and that call for a finer discrimination in their choice and in their application to disease than it has been necessary to accord to many of the drugs used in medicine. Science versus empiricism, the dangers of systems and specialties, physical therapy promotion, and the basis of physical therapy are discussed. Fishbein says that if the situation that confronted the American Medical Association before the establishment of the Council on Pharmacy and Chemistry was confusion, that of physical therapy resembles almost chaos. When the textbooks in the field of physical therapy tell the physician that the spine of the patient with locomotor ataxia may be restored to its pristine glory by running a few shocks up and down from the cervical region to the coccyx, is he to discard the prognosis that he has made in the past and to tell the friends and relatives of the victim of the Wiles of Venus that his lapse from virtue is to have no further evil effects? What is the physician to do when he learns that most of the textbooks in this field are the products of men who are employed by concerns selling apparatus; when he is constantly besieged with lecture courses paid for by those who have something to sell; when his office is inundated with literature telling him that his financial future depends on the purchase of a vast amount of such machinery? Clearly, a house cleaning is badly needed in this particular field. At the last annual session of the American Medical Association, held in Atlantic City, the House of Delegates, on the request of numerous members of the profession, voted the establishment of a Council on Physical Therapy, consisting of chemists, physicists, physiologists, pathologists and clinicians, who are to evaluate the actual worth of physiotherapeutic apparatus and methods, and to keep the medical public informed by regular statements of the actual truth or fallacy of such claims. At the meeting of the Board of Trustees held in Chicago early this month, a tentative list of membership for such a council was drawn up. It includes men who are leaders in the field of scientific medicine and in the specialties that have been mentioned, and representatives of the greatest universities and institutions for research in physics and

physical therapy that exist in this country. Practically all of these men have volunteered to serve without a cent of compensation in order to give the medical profession unbiased and scientific statements concerning the physical therapy field. Their labors, as have been intimated, will be like the attempts of Hercules to clean the Augean stables. And the medical profession may confidently look forward to the time when the path between the vast accumulation of discarded refuse, jumbled wires, rusted hydrotherapeutic apparatus, peculiar tables and benches, worn-out electric bulbs, and other queer therapeutic apparatus, and the path leading by simple and clean methods to honest therapy will be clear. It is significant that the American Electrotherapeutic Association chose of its own accord to ask the American Medical Association for the appointment of such a council; that officers have taken steps to put it clearly on the side of scientific therapeutics, and that in the arrangement of its program they endeavored to secure material representing actual investigation rather than the exploitation of unknown devices or of therapeutic fallacies.

END-RESULTS OF RADIUM TREATMENT OF SKIN CANCER

The results in 265 cases of skin cancer treated by radium are analyzed by Ernest M. Daland, Boston (*Journal A. M. A.*, Feb. 13, 1926). The early cases show 81 per cent of cures by radium, and 3 per cent by operation following radium. The moderately advanced cases show 38.4 per cent of cures by radium, and 10 per cent by radium and operation. None of the advanced cases were cured by radium and only 3 per cent by the combined treatment. The results of all cases give 62.5 per cent of three years cures by radium alone and 4.4 per cent more by operation following radium. In cancer of the nose alone, there were forty-four cures in fifty-seven patients. When it involved the adjacent structures, there were ten cures out of seventeen cases. The ear cases showed nine well of twelve treated, but when the disease spread from the ear to surrounding tissues the patients all died. The eye cases were the most satisfactory of all, there being twenty-five cures out of thirty cases. There was but one death, the other patients being alive with the disease. The other large group of patients, those in whom the cheek was involved, gave twenty-six cures out of forty-one possibilities. The results given are of two year cases and include all cases treated by radium, early and advanced. Patients dying with cancer still present are recorded as dying of cancer. It seems fair to conclude that radium is the treatment of choice in cases of cancer of the nose and the eyelids, when operation would cause severe deformity. It is a perfectly satisfactory method of treating skin cancer in any location, although excision is satisfactory when the lesion lies in an area in which no deformity would result. Anything but the most superficial lesions on the ear or dorsum of the hand should be excised. The best method of treatment is to destroy the gross lesion by the insertion of one millicurie radium emanation seeds, one to each cubic centimeter of tissue. Emanation tubes in steel jackets should then be used to destroy any remaining growth, from 12.5 to 15 millicurie hours to an area, the tubes not nearer to each other than 1 cm. An alternate method is to place such a tube on 1 cm. of gauze or wood or on a hollow brass cone. In this case the dose should be quadrupled. Palliation and relief from pain may be given in some cases in which cure is out of the question.

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EDITORIALS

RELATIONSHIP OF OPTIC NERVE TO SPHENOIDAL SINUS

Recently we read the report of a very well known internist, who in discussing the etiology of sudden unilateral blindness accompanied by acute inflammation of the orbital tissues and proptosis of the eyeball, made the erroneous statement that the sphenoidal cavity on the affected side could not account for the trouble as the optic nerve had no relationship to the sphenoidal cavity. Evidently he is not familiar with the investigations of Schaeffer and the remarkable paper accompanied by specimens and illustrations presented by Schaeffer at the last Boston session of the A. M. A., in which it was conclusively shown that not only does the optic nerve pass through the sphenoidal sinus in a large percentage of cases, but that not infrequently the nerve is fully exposed in the sphenoidal cavity without bony covering. In consequence of this not infrequent exposure of the optic nerve within the sphenoidal sinus, surgeons were advised that all operative work on the sinus be limited to simple opening of the sinus, without curettement, in order to avoid possible injury to an exposed optic nerve. Since the publication of that valuable contribution all rhinologists of experience have opened the sphenoidal sinus with extreme care, and at all times avoided curetting the sinus.

FALLACIES IN THEORIES CONCERNING ENDOCRINE DISTURBANCES

At the present time, with so much being written and said concerning endocrine disturbances, it is refreshing to find a note of warning in the paper by J. D. Camp, and its discussion by others, published in the *Journal of the A. M. A.*, January 16th, 1926, in which attention is called to the variations in the contour and size of the normal cella, and the difficulty in differentiating the pathologic conditions producing changes in the cella that are merely changes in the normal. Therefore, as pointed out in the discussion, it is well to sound a warning against reading into practically normal roentgenograms evidence of endocrine disturbances. This is especially appropriate at the present time when there are so many unsupported theories on the part of certain endocrinologists concerning the pathology of the pituitary. One discussant who has done a great deal of work on the cella turcica and who has

arrived at the classification given by Dr. Camp, makes the unqualified statement that "there is absolutely nothing in the cella turcica as far as a roentgenray picture is concerned that is of any significance at all from an etiological or from a diagnostic point of view. As far as endocrinology is concerned, it has absolutely no bearing on organotherapy or on the function of the pituitary, because the excavation is anterior to the cella turcica and has nothing to do with the cella turcica, etc." He further says that as far as pituitary disease is concerned, he has found no change at all in the cella turcica which would give any clue at all as to the symptomatology. He found no larger shapes or smaller shapes in pituitary or hyperthyroid or goiter cases. In other words, goiter cases did not give him a larger cella than his hyperthyroid cases. The size did not mean anything at all, for he could not tell by the size what the symptomatology would be.

CHEAP INDEMNITY INSURANCE

Not one man in a hundred reads his accident, health or life insurance policies, and yet he should do so, or have someone do it for him as a matter of protection in detecting flaws. Many policies contain "jokers" which to the casual reader may mean nothing detrimental to the interests of the policy holder but which in reality have been put in purposely by the insurer with the idea of avoiding indemnity. Other policies are so worded that if the insurers technically follow the restrictions and provisions, there will be little or no liability in a large percentage of cases. The insurance companies that are most apt to avoid indemnity or technicality are the ones that furnish cheap insurance. Whenever you get a standard article for less than the standard price for that article your purchase generally proves in the long run to be expensive rather than cheap. Think of the thousands of men who a few years ago depended upon lodge and assessment life insurance to protect their families, only to find later, when age prevented the acquirement of other life insurance, that the assessment or lodge insurance turned out to be worthless. Think of the hundreds of thousands of people who are beguiled by glib salesmen into taking cheap accident and health insurance only to find out later that it is next to worthless, as the companies refuse on some technicality to be responsible for indemnity. Probably all doctors carry protective insurance, and our suggestion is, that in procuring insurance it is well to get the policies in not only well-established companies but in companies that have a record for fair and liberal dealing. The policies should be examined for "jokers" or for technicalities that may spell disaster in time of need for the indemnity for which the policy is carried. How many doctors have been prevented from securing indemnity from a health or accident insurance company through the technicality exercised in refusing to consider a claim for total disability when a few

duties pertaining to professional work have been performed during the period of disability. The officers of companies know that no professional man can be totally disabled unless you kill him or greatly impair his mind, but a doctor with compound fracture of both legs and numerous bruises and cuts about his body from an accident, still can write prescriptions and give advice to patients, so he is performing some of the duties of his profession even though all common sense would indicate that he has a major injury intended to be covered completely by his accident insurance policy. We once filled out an insurance blank for a factory manager and pronounced him totally disabled from a severe eye injury that kept him in bed most of the time for two weeks with both eyes bandaged, but a cheap insurance company tried to evade payment of indemnity because the man was driven to his office every morning by his wife and while there devoted about fifteen or twenty minutes to listening to his mail that his secretary read to him, and giving various foremen some orders. Such a case is not an extreme one at all, but similar ones occur in the practice of every busy physician who is called upon to take care of accident cases. Every insurance company must be protected by rules and regulations, but there must of necessity, be some liberality in the interpretation of rules and regulations as a question of fairness to both parties to the contract. Fortunately it is rare to find any of the well established companies playing such a cut-throat game as is practiced by some of the smaller companies, and especially the companies that make a plea for business on the ground that they are cheap. Anything that is really good is not cheap in the common acceptance of the term, and it does not make any difference whether you are buying merchandise, real estate or service.

REJUVENATION FAKERY

As was to be expected the subject of rejuvenation, brought to the fore through the work of Steinach and others, has been made the basis of some of the rankest kind of quackery which flourishes as a direct result of that Ponce de Leon feeling of so many individuals past middle age who desire to partake of the waters of the Fountain of Youth and thus turn back the pages of time and be young again. The latest commercialized scheme of this kind that has come to our attention is the one emanating from the American Endocrine Laboratories of New York, that offers what is called a scientific rejuvenation without operation, and the promoters guarantee rejuvenation results in thirty days' time, at an expense of \$150, a so-called bonded guarantee being furnished in which it is promised to return the price paid for the instrument which forms the basis of treatment. In the guarantee it is stated that the instrument generates a stream of genuine gamma rays in therapeutic quantity, that they pass directly through the body to the endocrine

glands, and that the gamma rays stimulate the generative glands to renewed activity. The guarantee also says that, "no matter how serious the ailments you may have, or how impotent you may be, or how much doctoring you have done, the use of the instrument will show signs of relief, and affords complete rejuvenation, relief, or cure, in thirty days or the money back clause in this agreement will positively be honored by the American Endocrine Laboratories." It also is guaranteed that the instrument "will retain its therapeutic energy for ten years."

Undoubtedly thousands of dupes will bite at the bait so alluringly offered, and be poorer but wiser after their experience, but someone has said that a new sucker is born every minute, so there will be no end to this game until the post office authorities put a stop to it or punishment is brought about through the courts for obtaining money under false pretences. In the meantime many an old human goat who hears of this enterprise will dig up \$150 to pay for it, even if he has to sell his "flivver" or take the shirt off of his back to raise the money. There is an old saying that the Lord protects children and fools, but while some of these old human goats are both childish and foolish the Lord doesn't protect them very well when it comes to keeping them from grabbing at a rejuvenation scheme, and hence they need legal protection. Not a few of them need custodial care.

STERILIZATION OF MENTAL DEFECTIVES

With an increasing number of mental defectives the question of sterilization to prevent their propagation seems to be worthy of serious consideration. Our institutions for the mentally defective are crowded, and it is a well-known fact that there are hundreds of mentally defective for whom there are no vacancies in the existing institutions. In addition there are the mentally defective who are taken care of by relatives or friends. It is well known that heredity plays the most important part in the cause of mental deficiency, and the public should be apprised of this fact and impressed with the importance of prevention through sterilization of those who otherwise would propagate their kind. At present the subject is receiving serious consideration in England, and prominent members of the medical profession in that country are bringing the matter to the attention of the public through the lay press. It is pointed out that the experience of custodial institutions is that with rare exceptions the feeble-minded remain as they are, no matter what is done for them. Since this is the case, and there really is no hope for general improvement in the interests of those affected as well as of the state of these persons, they should be prevented from propagating their species. It is said by some that segregation alone will be all that is necessary, but it is impossible to segregate all mental defectives.

Sterilization may be accomplished by a very simple operation which, while preventing reproduction, in no way interferes with the ordinary habits of life. An economic side of the question is that in a considerable proportion of the cases, sterilization would obviate the necessity for institutional care of either sex, and this would remove a large burden from the taxpayer.

As opposed to sterilization, the officers of the principal association for mental welfare in Great Britain come forth with a protest on the ground that the preventive effect of a general policy of sterilization would be very slight, and they base this on the fact that the proportion of subjects who are the offspring of actually defective parents is extremely small, and they say that if every defective in existence a generation ago had been sterilized the number of defectives today would not have been appreciably diminished. The more serious phase of the question is that a general policy of sterilization would be attended with serious social evils. There is no point in sterilization unless it is to be accomplished by the freedom of thousands of defective males and females who now are cared for in institutions where they are generally happy and usefully employed. The liberation of thousands of feeble-minded girls and women known to be sterilized and therefore incapable of becoming pregnant, would increase promiscuous intercourse and the dissemination of venereal diseases. Even if the value of sterilization were unquestioned, public opinion probably would find such a measure too revolting to consent to its adoption.

CAUSTIC ALKALI LEGISLATION

Through the efforts of Senator Watson, substantial progress has been made in the senate in the passage of the proposed Federal Caustic Alkali Bill, which is of much interest to the medical profession. A hearing was held on Friday, March 5th, by the Committee on Interstate Commerce, of which Senator Watson is chairman. The meeting was called by Senator Watson at the request of the medical profession in order to bring about the passage of the bill introduced by Senator Pepper, of Pennsylvania, requiring manufacturers of lye and all caustic and corrosive acids to have printed on the package containing such articles, the word, "poison," in a conspicuous manner.

The members of the Interstate Commerce Committee listened with amazement to the testimony given by the eminent specialist, Dr. Chevalier Jackson, of Philadelphia, Pennsylvania. Dr. Jackson told the pitiful story of children who have suffered from innocently swallowing washing lye and similar alkalis, thinking such articles were food. Dr. Jackson is known to the medical profession as one of its most eminent practitioners. He is known as probably the foremost authority in the world in the extraction of foreign bodies, such as safety pins, coins, and any articles which enter

the esophagus or gullet. He is also an eminent authority on the stricture of the gullet, caused by the innocent swallowing of alkalis and lye. Dr. Jackson exhibited pictures showing the distressing conditions that exist, caused by the penetrating of the elementary canal by lye and similar subjects. His statements were supplemented by the testimony of Dr. Charles W. Richardson, of Washington, D. C., and Dr. W. C. Woodward, of Chicago, both representing the American Medical Association.

Senator Watson presented to the committee a statement from Dr. Frank W. Cregor, of Indianapolis, chairman of the Committee on Public Policy and Legislation of the Indiana State Medical Association. Dr. Cregor stated that "every physician in Indiana is interested in having this legislation adopted. The only interest that any member of the medical profession has in favoring this bill is due to the fact that, if adopted, it will save the lives of many children. It will prevent many accidents now caused by the carelessness of housewives in handling poisonous lyes and similar materials and leaving unlabeled cans of lye within reach of children. Physicians are in the best position to appreciate the horror that results from children eating lye. Again we wish to thank you for the keen interest you have always shown in the ideals for which the medical profession stands, and we hope that you will throw your powerful influence in the interest of the lives and health of little children."

At the conclusion of the testimony, Senator Watson indicated that he was deeply impressed by the statements made by the eminent physicians appearing before his committee and that he would exert every effort to see that the Lye Bill, which is so humane in its purposes, would be promptly approved by the committee of which he is chairman. Senator Watson will write the report on the bill for the committee and present it to the senate in the near future.

CHIROPRACTORS PAY ONE HUNDRED AND TWENTY DOLLARS (\$120.00) PER YEAR ANNUAL DUES

The fact that a few physicians throughout the state have protested against the payment of approximately ten dollars per year in the shape of dues in order to carry on the activities of the Illinois State Medical Society prompts us to mention the fact that a band of chiropractors in the state pay as dues the sum of one hundred and twenty dollars (\$120) per year or ten times the amount paid by members of the regular medical profession. By comparison this makes the doctors belonging to the regular school look like pikers.

We are reliably informed that at the close of the last session of the legislature some of the leaders of the chiropractor legislative committee openly boasted that the chiropractors had in their treasury upwards of \$150,000 that they intended to use in putting over a chiropractic bill at the

forthcoming session of the legislature; that Illinois is a pivotal state from the chiropractic standpoint, that it is just across the river from the great chiropractic school at Davenport, Iowa, and that they must have the chiropractic law in Illinois. We accept all these statements as gospel truth as viewed from a chiropractic standpoint and repeat that when it comes to raising money to carry on activities of a state medical organization the members of the medical profession are only pikers. *Illinois Medical Journal*, March, 1926.

THE DOCTOR AND HIS FEES

We always have maintained that every doctor is too poorly paid for his services, and this is particularly true with the general practitioner of medicine. By way of comparison let us consider the lawyer who with less investment of time, energy and money, hangs out his sign, and just as soon as he becomes known he begins to charge fees that are what the average lawyer charges but which always are more than double and sometimes three or four or ten times as much as any doctor ever would charge for services requiring as much time, thought or responsibility. In fact, perfectly fabulous fees have been paid to lawyers innumerable times, and incontrovertible evidence concerning this fact is shown by court records where the fee allowance is made known. A legal fee of one to five thousand dollars is a comparatively ordinary thing, and no one seems to think much about it, even though the services for which the fee is paid have required little time and effort on the part of the recipient. If a doctor receives such a fee, and it is rare, he has to render some unusual services, and generally there is a complaint about the injustice of the fee. Furthermore, we would like to point out, what every doctor knows and can prove, that there are a great many people who distort and magnify reports concerning experiences with doctors, and an operative fee of twenty-five dollars received by the doctor is magnified to one hundred or two hundred dollars when told by the patient. We happen to know of one surgeon who got the reputation, through the report of the patient, of receiving a fee of five thousand dollars when as a matter of fact the surgeon's books and statements showed that the fee never had been but one thousand dollars, covering three different operations, and that even the one thousand dollar fee had been paid only in part and there was not much chance for collection of the balance. We also know of a profligate manager of a manufacturing concern who gave as an excuse for not paying his merchandise bills that he had had to pay a doctor six hundred dollars in advance for services rendered which put him back to work but also put him back financially. The written statement of the patient to this effect finally came into the hands of the doctor who promptly exposed the falsity of the claim by producing his books and showing that an original fee of one hundred

dollars for the services had been reduced to fifty dollars, for which a note had been given and never paid. In this particular instance the doctor had received some rather unfavorable notoriety in consequence of the report that he had exacted an exorbitant cash fee from a patient in ordinary circumstances.

It may be true that we have some panhandlers and robbers in the medical profession when it comes to charging fees for services rendered, but what profession or business does not have such undesirables within its ranks? It may be true that some surgeons and specialists are fairly well paid for their services, but on the whole the medical profession is too poorly paid in consideration of the time, energy and money put into their education and training, the responsibility assumed in the care of the sick, and the character of services they render in helping to restore that priceless gift, health.

MECHANOTHERAPY COMMERCIALISM

Mechanotherapy is receiving much favor in the medical profession, but there should be some means adopted whereby the whole subject may be divorced from the commercialism which at present is connected with it. The manufacturers of all kinds of mechanotherapy apparatus, from x-ray machines, alpine lamps, diathermy apparatus, high frequency outfits, on down through to the simplest apparatus for massage, are making the most exaggerated and oftentimes untruthful statements concerning the potential properties of their wares and the therapeutic results to be obtained from their use. The manufacturers and salesmen also are playing upon the credulity of medical men as to the increase in income to be obtained by the more general employment of these various appliances. Therefore something should be done to place the whole matter upon a rational basis. At present several manufacturers and not a few supply houses are staging mechanotherapy clinics and demonstrations to which the medical profession is invited. It is but natural that at these clinics the over-enthusiastic user of electric mechanotherapy appliances will appear in the limelight, and it is high time that some unbiased committee or council pass upon the astounding claims put forth at such gatherings. We therefore welcome the consideration of the subject by the American Medical Association through the mechanotherapy council created through action of the House of Delegates at the last session of the Association. In the meantime, all medical men will be wise if they go a little slow in accepting the statements made by manufacturers and others who either are profiting through the commercialization of this feature, or are perhaps innocently blinded in their enthusiasm by results having no basis in fact which can be attributed to the therapy so loudly praised.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely free to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve you.

"Won't play with piles," is the legend under the picture of a good looking young woman that may be seen as a piece of advertising in many daily papers. Naturally, a reader would surmise that a young woman would rather play with most anything else than piles.

It is entirely appropriate to keep before the medical profession the idea that all health officers should first be physicians, and we hope this matter will be uppermost in the minds of the medical profession in communities where a health officer is to be elected or appointed.

It is reported that Congress is making an unofficial investigation of the character of the pies served in the congressional restaurants, due to the complaints that the pies served are not what they should be. Well, why shouldn't they waste some of their time in such a frivolous proceeding? It would be just as sensible as some of the other deliberations for which we pay our good money.

THE *New York World* is authority for the statement that women stand cold better than men, and in proof of this it points to the fact that in various swimming contests men have been exhausted by the cold whereas the women were unaffected. One observer suggests that women are injured to cold because they wear fewer clothes than men, and perhaps there is something in that logic.

W. E. Eickhoff, of Fort Wayne, announces himself as a candidate for Congress. Irrespective of political affiliations, every reputable doctor who has the opportunity ought to vote to keep Eickhoff out of Congress, for his record in the Indiana legislature indicates that he is opposed to almost everything for which the regular medical profession stands, and he is the defender and supporter of medical pretenders.

A CHIROPRACTOR of Kokomo has filed a notice of his intention to seek the nomination for coroner on the Republican ticket. If the doctors of Kokomo do not put a crimp in the chiropractor's pro-

gram, they ought to acknowledge that they have no influence or standing in the community. Furthermore, if the chiropractor succeeds in getting the nomination, then every doctor in the county should bend his energies to defeat him.

THE secretary of the A. M. A. says that the failure on the part of members to pay dues until after delinquency has occurred, costs the Association one dollar per member through the clerical work that is entailed in cutting names from the mailing and membership lists and a little later putting them on again. As a matter of fact there is no excuse for delinquency in the payment of medical society dues, and doctors who are guilty should be ashamed of themselves.

SOME of our confreres have discovered a new use for insulin. At Strasbourg insulin has been found useful in the treatment of sluggish wounds in patients not diabetic. In varicose ulcers the use of insulin given intramuscularly, and in ointment, has been found beneficial in injections of forty units each, being given daily without untoward effects. Insulin treatment causes repair of the ulcer.

THE government of Mississippi has signed the bill which prohibits teaching in the public schools of Mississippi anything pertaining to the ascent or descent of human beings from the lower animals. Thus does Mississippi place itself on record as opposed to the rational consideration of evolution or anything else pertaining to the origin of man. Perhaps the next thing will be a law forbidding the teaching of the theory that the earth is round.

THE Kahn test in the serum diagnosis of syphilis seems to have taken the place of most all other tests in laboratories, and now the United States Navy Medical Department has notified all medical officers that hereafter the Kahn test will be regarded as the standard test in the serum diagnosis of syphilis, and that it is to be so employed as a routine. It is purely optional whether other tests are employed, but if employed they are to be in addition to the Kahn test.

THE prevention and control of measles by the administration of the Bernard serum has not been shown conclusively, though it would seem that the method may be used to prevent epidemics and thus prove to be of practical value. As usual, the lay press is making extravagant claims. It is hoped that an anti-measle serum may be perfected and prove to be as effectual in its purpose as antitoxin for diphtheria, for measles in reality is one of our most serious acute diseases and is attended by a mortality that is greater than generally supposed and even in those virulent cases that recover there are many damaging sequelæ.

We note that some of the active county medical societies that boast large attendances at meetings are the ones that have both clinical and post-graduate meetings, and go to the trouble and expense of having outside help in furnishing the programs. The textbook paper, something exceedingly common in years gone by, has no place on the program of our modern society. A clinical program always is profitable if the cases or case reports are well presented and the discussion comprehensive.

THE *Journal of the A. M. A.* is publishing a series of articles on the methods of prescribing and preparing, the indications for, and the uses of various medicaments, under the general title, "The Technic of Medication," under the authorship of Bernard Fantus, M.D., associated clinical professor of medicine, Rush Medical College. The articles are comprehensive and instructive and form a trustworthy guide for the use of medicaments. When completed, the articles will be assembled in book form.

It is unfortunate that at last year's session of our Association the House of Delegates postponed action upon the revised constitution and by-laws as presented by the Committee appointed to draft the same. It is frankly admitted that there are only minor changes, and those could have been made a year later, and the constitution and by-laws with those slight revisions adopted at once. We now would be operating under it to advantage. We sincerely hope that this year there will be no further delay in accepting the changes so urgently needed.

THE New York University and Bellevue Hospital Medical College has received gifts amounting to twenty-nine thousand dollars during the current year. Four thousand of the amount is to be used for the study of anaphylaxis which involves the problems of asthma, eczema, hay fever and urticaria, diseases which are related to one another. In making these investigations it will be necessary to resort to animal experimentation, and it will be interesting to note later whether the anti-vivisection society attempts to suppress the work that is to be undertaken in the interests of human sufferers from the distressing diseases mentioned.

THE effort to re-enact the Sheppard-Towner law is meeting with deserved opposition. The act has been exceedingly expensive for both the government and the states that have accepted the provision of the act, and it can not be conclusively shown that the results brought about as a direct result of the act are at all in keeping with the expenditure of energy and money incurred through the act. One of the objections raised is that the government should not appropriate money for any function which properly belongs to the

individual states. We already have too much centralization of power in Washington and it is time that we call a halt.

THE secretary of the Indiana State Board of Health has a letter in the correspondence department of this number of *THE JOURNAL* concerning the subject of diphtheria prevention in Indiana. He offers a suggestion that we think is well worth considering—that a campaign should be sponsored jointly by our Association and the State Board of Health, and encouraged by various lay organizations whose support undoubtedly can be secured, to bring about diphtheria prevention in Indiana by immunization. We sincerely hope that something may come of the suggestion that has been made, for the keynote has been sounded when we point out that in a campaign of this kind the medical profession ought to take the lead.

THE *Journal of the A. M. A.* under date of February 20th, issues a warning concerning the harmfulness of acacia in the treatment of shock and hemorrhage, and asserts that the changes resulting from the use of this otherwise inert agent bear on the many-sided question of intravenous therapy. Gsell, of the Physiology Laboratory of the University of Michigan, is quoted to the effect that the greatest care should be exercised in the use of this blood substitute in man, for in his physiological experiments extremely toxic effects, with a large drop in blood pressure, were not uncommon. The *Journal of the A. M. A.* says that this warning may be extended to the blood substitutes, and to intravenous injections in general.

A HIGH school physical director has taken exception to our interest in high school athletics as it pertains to injurious effects upon health, and makes the statement that athletics never harmed healthy high school students. No satisfactory answer could be given to the inquiry as to how the athletic instructors are going to tell whether a high school student has a normal heart or not unless he is examined by a well trained medical man and examined again after violent exercise to determine whether the heart has suffered any ill effects from the exertion. Our point is that the athletic training in our high schools should be supervised very carefully, and in conjunction with the examination and advice of well-trained medical men. We do not believe that any rational minded individual can combat this argument successfully.

THE Harrison Narcotic Act has been a source of much annoyance to many members of the medical profession whose reputation and integrity place them beyond reasonable suspicion of dispensing narcotics to addicts, and yet statistics seem to show that the act has accomplished very little in the suppression of the use of narcotics, because

there are so many underground channels through which narcotics are obtained and sold to the addicts. However, this does not justify any conclusion that the Harrison Narcotic Law has not served some purpose. As a matter of fact, if the law is to be modified it should be modified in such a way that the peddlers of narcotics can be detected with more certainty and more severely punished.

IN the March number of *THE JOURNAL* we called attention to an example of quackery on the part of a member of the Montgomery County Medical Society and put the query as to what the society was going to do about it. We have just received a letter which says that the Board of Censors of the Montgomery County Medical Society filed charges of quackery and unethical conduct against the member referred to in *THE JOURNAL* and at a trial the society expelled the guilty one. We compliment the members of the Montgomery County Medical Society for having the courage of their convictions. A good example has been set for other county medical societies that have been inclined to ignore open quackery and breaches of ethical conduct on the part of some of their members.

RECENTLY there seems to be an epidemic of the fever that prompts some of the doctors in the smaller towns to seek newspaper publicity. Sometimes this publicity indicates nothing short of the rankest kind of quackery while in other instances it is merely evidence of a desire to get in the limelight. One newspaper, published in a town in the central part of the state, contains in a single issue five items that seem to glorify the ability and skill of a certain doctor who evidently has courted the publicity given him. It is possible for county medical societies to put a stop to this sort of newspaper publicity in spite of the desire on the part of a few men to parade their names in the public press. It is high time that something is done to prevent such breaches of ethical conduct as helps to keep up friction and an under-current of ill-feeling in the medical profession.

It is rather strange that there is such a very small amount of scientific information concerning the subject of obesity, and especially in view of the public interest given that subject. The *Journal of the A. M. A.*, quoting Dubois, the author of a late work on basal metabolism in health and disease, says that. "We do not yet know why certain persons grow fat." Most physiologists are disinclined to admit any hereditary factor in obesity. The prevalence of obesity in certain persons is attributed to their manner of life. In some cases it may be due to endocrine idiosyncrasies while in others it may be due to general peculiarities of metabolism, though Dubois makes the statement that basal metabolism in obesity is

normal or at least not unduly lowered. The whole subject of obesity should have more scientific investigation with a view to arriving at trustworthy conclusions.

NOTWITHSTANDING the fact that practically all reputable ophthalmologists in the United States have condemned the so-called absorption treatment of cataract as being relatively worthless, the public is being exploited by any number of conscienceless quacks, some of whom belong to our regular medical societies, who are practicing the absorption treatment upon people blind from cataract, and there are certain nostrum manufacturers who are advertising absorption treatment for cataract to the laity through the public press. In this connection it is interesting to note that the Congress of Ophthalmology of Italy, recently held in Rome, in discussing the treatment of cataract, especially emphasized the futility of attempting to cure cataract without surgery, and the general consensus of opinion of those attending the congress was that it is impossible through medical treatment to restore to the lens its transparency.

NEW YORK is to have a special hospital devoted to cosmetic surgery and operated and controlled by well-trained, experienced and reputable medical men. We often have wondered why such an enterprise was not started long ago so that the charlatans and quacks who have had a monopoly in the correction of cosmetic defects and commercialized the practice to the detriment of the pocketbooks of their patrons, could be checkmated. The late war brought about great advancement in the science of cosmetic surgery, and the results secured by some of our eminent surgeons have been a stimulus for greater activity in this line of work, with a corresponding demand on the part of the public for greater utilization of it. It therefore is entirely commendable and in the line of progress to welcome the appearance of a hospital that will be devoted to cosmetic surgery, and the enterprise conducted entirely under the guidance of reputable men in our profession.

THE modern young woman is given credit for having a better complexion and healthier skin than the young woman of twenty-five years ago, and this desirable and appreciated condition of affairs is attributed to the rather general athletic activity of the modern girl and her habit of being out of doors more and taking more exercise, which has a tendency to prevent or do away with constipation with its attendant ill-effects from the absorption of toxic material which should be passed off through the bowels. What a pity it is that the modern young woman with her better complexion as compared to her grandmother is disposed to spoil it with so much bleach, paint, rouge and powder. It really is unfortunate that the species

of young womanhood known as the "flapper" cannot be made to understand that the bright carmine-painted lips and cheeks, and the various powders and bleaches so liberally used upon the face, are positively destructive to any semblance of healthy complexion that may have existed or might exist under normal conditions and appropriate hygienic care.

AN anonymous writer sends us a leaf from a telephone book upon which is the professional card of the secretary of a county medical society, and the anonymous note enclosed says, "What are you going to do about it?" Perhaps it is natural for some people to want others to fight their battles for them. If a member of the county medical society, and in particular an officer of a county medical society, is guilty of transgressing all the rules of ethics and propriety it is up to the medical society to which the offender belongs to do the disciplining or penalizing. As a mere side issue, it may be noted that the printing in newspapers, telephone books, or similar places of a professional card containing merely the physician's name, address, office hours and perhaps telephone number is not in itself a breach of ethics, though it can be considered in bad taste to make such an announcement in large display type. It is quite another thing to carry with the card an announcement of a claim for unusual talents, or the possession of a remedy that is offered as producing a cure or unusual results.

As a suggestions to our Indiana State Board of Health, we recommend that there be distributed to the medical men in Indiana a pamphlet that will give complete information concerning the prevention and treatment of diphtheria, with detailed description of the various procedures necessary in the administration of toxin antitoxin, the Schick test, and antitoxin. Such a pamphlet has been distributed to the medical profession of New York State by the Board of Health of that state in connection with the campaign to eradicate diphtheria from New York. The example could be followed by other states, Indiana included. As has been well said by the commissioner of health of the State of New York, "The medical profession has within its grasp means sufficient to eradicate diphtheria completely. The ultimate eradication of the disease will depend upon the early immunization (preferably at six months of age) of every child, with toxin antitoxin, and without prior Schick-test, for at this age nearly all are susceptible to diphtheria."

WE are pleased to publish the fact that several doctors have announced that they are candidates for the next legislature. This is encouraging, but we hope that before the primaries there will be more doctors who are willing to stand for nomination and election as State representatives or senators. Furthermore, we believe that party politics

should be thrown to the discard when it comes to voting for candidates for the legislature. At every session of our legislature there is more and more discussion of subjects that pertain directly or indirectly to the practice of medicine or some phase of individual or community health, and in the past there are many legislators who in an unguarded moment and without giving the subject careful attention have made promises to some of the anti-medical cults which if carried out would result in considerable damage to the cause represented by the medical profession. Therefore, we urge every medical man in Indiana to take an interest in politics to the end that reputable medical men or men favorable to rational legislation concerning the practice of medicine or some phase of public health shall be elected to our legislative halls.

AN unusual, but it is expected that it will be a very successful experiment in the promotion of health education, is to be undertaken in Pennsylvania by having a totally blind man spread the gospel of blindness, and the training, care and employment of the blind. The man selected for this purpose is the Honorable Henry E. Lanius, who for fourteen years has been a member of the State legislature of Pennsylvania and a nationally known chautauqua speaker. Under the auspices of several of the associations and largely financed by the Lions Club, he will visit fifty-three cities for the purpose of acquainting the people with the principal causes of blindness and the means of eliminating or counteracting such causes. He also will bring to the communities better appreciation of the existing opportunities for training the blind to help them to become self-supporting, happy active citizens. The speaker will point out that blind lawyers, doctors, ministers, typists, factory workers, weavers, etc., are not the results of genius or accident, but are made, through giving a careful consideration to each blind person's capabilities and seeing that he gets the proper training to develop them.

AN enterprising gum manufacturer has added iodine to gum, presumably with the idea of giving the gum-chewing damsel with goiter an opportunity of obtaining treatment in an agreeable way. We are under the impression that continuous gum-chewing during all the waking hours would give only an infinitesimal amount of iodine absorption, but the idea may look good to many thyroid cases, so it is quite possible that the manufacturer will profit as a result. It may not be amiss to call attention to the fact, discovered by numerous observers, that hyperthyroidism may be greatly increased as a result of the iodine treatment, and accordingly the iodine treatment should not be prescribed promiscuously even to the extent of having it combined in water, salt or chewing gum. One writer (Jackson, *Amer. Jour. of Med. Sciences*, August, 1925), insists that even minute

amounts of iodine are sufficient to initiate symptoms of hyperthyroidism in certain persons with adenomatous goiters. His conclusion is that iodine should only be administered in exact amounts and under a physician's orders, and particular care should be given in administering it to children with adenomatous goiters. It never should be given to adults with this condition.

OUR readers will be interested in a letter in the Correspondence Department of *THE JOURNAL* which comes from Dr. Frank W. Foxworthy, formerly of Indianapolis, but now of Miami, Florida. Much has been said and written concerning Florida's boom, the crowded condition, and exorbitant prices charged for everything in Florida and in Miami in particular, so we are pleased to have the opportunity of getting an opinion from one whom we believe is unbiased in his report of conditions as they are in Miami. From many years of personal experience we can testify that the winter climate of Miami is perfectly delightful, but a year ago the extortion practiced by nearly every one in Miami was little short of highway robbery in its daring and effect, so it will not be surprising if the penalty is not paid for it. However, Florida will come into its own when conditions become stabilized, for it is the logical winter playground for hundreds of thousands of people in the North, particularly east of the Mississippi river, who desire to get away from the chilling blasts of winter for a few weeks at least.

A VERY ethical member of our association who is employing physical therapy to a considerable extent in his practice has written us concerning his attitude, and we quote as follows:

"I have been a little hesitant to take up and emphasize physical therapy in my work because of the prevalence of irregular practices which we might term malpractice in the name of physical therapy. Our regular medical profession has been rather apathetic in the face of the demand on the part of many people for some substitute for drugs or the knife, and not being able to get what they think they want from us they are quite prone to go to the first irregular who practices some form or other of physiotherapy. The person whose headache has been rubbed away by a masseur, a chiropractor, or an osteopath may not have a functional syndrome the next time, but may need a competent oculist, or a nose and throat specialist. The person who apparently is relieved of constipation may later develop a true appendicitis, or a strangulated hernia which would require first of all a diagnosis, which the untrained is unable to make, and then competent surgery. It is my idea that the medical profession, like all other professions, will stand or fall directly in proportion to the completeness of its service to the public. We handicap ourselves too much when we fail to use all of the tools in our chest rather than the two main ones which we have been relying on in the past."

ENGLAND's birth rate is falling, and the decreasing number of births is occasioning considerable comment. The advocates of birth control are sat-

isfied, and the argument is put up that the size of the family must be limited owing to the present scale of taxation, local as well as national, and the higher cost of living. It is the greatest difficulty for the breadwinner to balance the family budget, and therefore he has to take far more thought of the liabilities he may incur than did his forefathers. On the other hand it is admitted that the well-to-do or those who can afford to rear large families are the ones who seem to be helping to reduce the birth rate. In France the lowering birth rate has brought forth some radical suggestions, even to legitimizing children born out of wedlock, in order to maintain normal growth in population. In order to encourage parenthood one manufacturer is paying wages to his workers in accordance to the number of children they have to support. A curious sidelight on the birth control question is found in the fact that a great many of those who lecture on birth control are either Jews or Germans and those races are increasing and multiplying in numbers so that, as one social worker says, "They are not practicing what they preach." The whole question seems to be of sufficient importance to justify recognition on the part of the lawmakers in considering the economic status of the people.

LUTHER BURBANK is credited with possessing great healing powers by the laying on of hands, and he condemns vivisection as being unnecessary for scientific purposes. We join with the editor of the *Illinois Medical Journal* in saying that we think Luther Burbank, plant wizard though he may be, should stick to his vocation and not presume to pass judgment upon a subject with which he is so unfamiliar. As stated by the journal quoted, "Surgical methods and anesthesia owe the greater portion of their improvement to experiments based upon canines. In many vital experiments, determining the action of drugs, the subject has been a dog. A long list of diseases, ailments and accidents owe the technic for their care or even prevention to animal experimentation. Diphtheria, lockjaw and childbed fever, scarlet fever and cancer are only a few that need be mentioned. Through these experimental methods have come discovery of drugs that relieve both men and animals. From experiments upon dogs came the discovery of insulin. The unceasing fight on disease is one of the greatest and most continuous steps in the crusade of progress. Now, if scientific men heeded the would-be sagacity of Burbank and abandoned animal experimentation, only too soon the science of medicine would revert to the art of witchcraft and the shallow speculations of magicians, and the mysterious manners and ways and means of the "Middle Ages."

IN complimenting the editor of *THE JOURNAL* concerning the editorial in the March number concerning diphtheria eradication, the secretary of

the Indiana State Board of Health says that in some localities in the state efforts to eradicate diphtheria through immunization with toxin-antitoxin, and even the treatment of diphtheria by antitoxin injections, has met with opposition on the part of members of the regular medical profession. He is authority for the statement that in some localities organizations like Rotary, Kiwanis, and parent-teachers' organizations have sponsored a diphtheria immunization campaign in spite of the opposition of the medical profession. This information comes as a shock to us, and we feel humiliated and ashamed to think that any regular medical practitioner in this day and age is so ignorant that he will refrain from using antitoxin in the treatment of diphtheria and toxin-antitoxin as an immunizing agent, let alone the inexcusable action in openly condemning such measures. Verily, we often wonder why the public in some localities has the least confidence in the medical profession. Furthermore, we are of the opinion that intelligent and progressive members of the medical profession are derelict in duty when they do not expose the almost criminal ignorance of any and all confreres who oppose the use of such a wonderful life-saving remedy as antitoxin. The time has passed when medical ethics or charity should shield the grossly incompetent in our profession.

THE new revenue act relieves the man with an ordinary income of considerable income tax that in former years has been somewhat of a burden. The new law does not permit medical men to charge off expenses in attending medical meetings and doing postgraduate work as a part of the necessary expense in carrying on professional work. It has been pointed out by the attorney for the American Medical Association that the reason why the allowance was not made was because medical men were the only ones asking for such a reduction, and it was thought that some serious attention to the request would have been given had the members of other professions made a similar claim. It seems strange that the butter and egg man, the plumber, the baker and the candlestick maker can go off to conventions, charge up all expenses, even for bootleg whiskey and theatres, and have them deducted from the income tax, while the doctor is denied any such privilege. To our notion this is an unfair discrimination. Undoubtedly it is brought about through the failure on the part of the medical profession to make its influence felt in the early days of income taxation. However, it is well that we now recognize the necessity of paying some attention to our own interests, and in consequence have legal representatives for the A. M. A. and many state medical societies to look out for our interests in legislative halls.

MANY of the old graduates of the Rush Medical College were somewhat surprised to learn that

their old professor of medicine, the late Norman Bridge, left an estate valued at something like eight million dollars, and under the terms of his will bequeathed about six million dollars to educational institutions, of which the major portion of the bequest goes to the medical department of Chicago University. The wildest imagination would not concede the acquiring of even one million dollars through the practice of medicine, and, as a mere sidelight, it is reported that Dr. Bridge's fortune came through a modest investment in California oil properties that a few years ago could be bought at a very small fraction of the cost at the present time. In short, a relatively small investment on the part of Dr. Bridge took the course of the proverbial rolling snowball and multiplied itself many, many times. In one sense it was a shrewd investment, and in another it was pure luck, for there are thousands of persons, not a few of them doctors, who have lost their investments in oil properties that perhaps looked just as promising as those in which Dr. Bridge invested. However, no one ever begrudged the fortune acquired by Dr. Bridge, for he continued to be active, progressive and highly respected. He greatly loved the practice of medicine throughout his entire life, and it was fitting that he should bequeath to educational institutions the large fortune he acquired so easily.

THE gullibility of individuals and even governments is proved by the announcement that a foundation has been formed in England with the object of raising a half million dollars for acquiring the rights to use Spahlinger's treatment for the cure of tuberculosis. A Geneva correspondent to the *Journal of the A. M. A.* says that Mr. Spahlinger is not a member of the medical profession but studied law and afterward worked at the Pasteur Institute in Paris. Some years ago he took an estate in a suburb of Geneva and there carried out his work for the cure of tuberculosis with a serum of his own composition. He has had every opportunity to present his treatment to the medical society of Geneva as well as to the Geneva Institute, and to treat patients in the clinics of Geneva. These opportunities he has scorned, and has preferred on several occasions to seek financial aid in England. Not long ago he persuaded the British government to look into his claims, and a clinician is reported to have been sent to Geneva, but nothing came of it. A few years ago an eminent London physician on the staff of the Brompton Hospital for Diseases of the Chest reported that Mr. Spahlinger attempted to cure (that was his claim) with his serum, some twenty patients placed at his disposal. In all failure was complete. The composition of this anti-tuberculosis serum is unknown.

It would seem to us that it is the duty of scientific medicine to investigate the claims of Spahlinger and publicly announce the findings. In no other way is it possible to suppress what on

the face of it looks like quackery, and prevent the expenditure of large sums of money by innocent investors in exploiting a worthless remedy.

THE subject of ventilation in homes but more particularly in schools and other public buildings, has been a debatable one for many years and resulted in the promulgation of some very fanciful ideas and the enactment of some foolish laws pertaining to it. Recently the subject seems to have been studied with some degree of care in order to arrive at trustworthy conclusions, and the result has been some sane conclusions that may well be considered by school boards and citizens when contemplating building operations. So-called ventilating engineers have been busy in designing and recommending expensive mechanical ventilating systems, some of which are all right when they work and others notoriously inefficient, but now comes a plea from Greensburg, *Amer. Jour. of Pub. Health*, January, for the window system of ventilation, with gravity exhaust, which system is comparatively highly efficient and inexpensive. As a matter of fact there has been too much emphasis placed upon the ill-effects of drafts of cold air. It is well for us to get back to the old idea of permitting or creating movements of air without chilling the body or making the room so cold as to be uncomfortable for habitation. Except in auditoriums where a large number of people may be congregated, window ventilation properly regulated is every bit as effective and healthful as any of the expensive ventilating systems that are recommended by ventilating engineers, and the promulgation of this idea by some of our public health officials who have given the subject intensive study will be appreciated.

THE death of Dr. George F. Keiper, which occurred at his home in Lafayette, Indiana, March 18th, is a distinct loss to our Association as well as to the immediate community in which Dr. Keiper lived and worked. For more than thirty years, to our certain knowledge, Dr. Keiper was interested in all that pertained to the best interests of the medical profession, and he proved this by his active participation in the scientific programs and the organization affairs of the national, state and local medical organizations with which he was identified. He also was an active and progressive member of a number of national, state and local special societies. His voice always was raised in the support and defense of ethical and progressive measures, and the judicial way in which he analyzed questions encouraged the confidence and respect given him. His latest piece of constructive work was a revision of the constitution and by-laws of the Indiana State Medical Association, upon which he put a great deal of time and thought, and it was with keen disappointment that he saw the adoption postponed until this year. He also has been responsible for several suggestions

concerning modification of the constitution and by-laws of the A. M. A., his last proposed amendment, introduced at the Atlantic City session in 1925, carrying with it the idea that the medical profession of Canada and the United States should be joined into one great body of medical men. His death occurred during the prime of life when it was possible for him to render the best service to the profession and the public he served.

THE Legislative Committee of the Indiana State Medical Association has sent out an urgent appeal to the members of the Indiana State Medical Association to use their influence in defeating the re-enactment of the Sheppard-Towner Act, and that portion of the Veterans' Act which gives free medical treatment and hospitalization to underserving veterans. The plea is as follows:

(1) Two bills have been introduced into Congress which, if passed, will continue the Sheppard-Towner Act in force until June 30, 1929. Otherwise the act will expire June 30, 1927. The Sheppard-Towner Act has been condemned unreservedly by the House of Delegates of the American Medical Association. "The pending bills to continue the act in effect are clearly within the ban of such condemnation, and now is the time to protest against their enactment," says an editorial in the *Journal of the American Medical Association*. The bills in question are Senate Bill No. 2696 and House Resolution No. 7555.

(2) Legislation which savors of state medicine is embodied in bills pending before Congress in regard to free medical treatment and hospitalization of veterans. The bills now pending, if they become laws, will increase the number of possible beneficiaries who are now being treated at the expense of the Government and will extend the bounty so as to make it include out-patient as well as hospital treatment.

(3) Your committee urges that you write the representative at Washington from your district and also Indiana senators, protesting against bills now pending which would broaden the scope of federal free medical and surgical services except for those veterans whose disabilities have been caused by World War service for our country, protesting against the continuation of the Sheppard-Towner Act, and asking a repeal of all legislation already enacted tending to federalize the practice of medicine and to nurture the germs of state medicine.

A GERMAN physician points out that women now lead us in the hygiene of clothing, and he urges men to reform by following the example of women in casting aside the close collar and long trousers, and emulate the low blouses, short skirts and artificial silk stockings of girls, and so let in more light and air, so necessary for superior health and vigor. Now comes the editor of the *Medical Journal and Record* who says that aside from exposing our legs, breasts and arms, as women do, we ought to imitate them by wearing more colors instead of being content with a little splash of color under our chins by way of a necktie. He points out that our ancestors from a century ago and back through historic times wore color and seemed happier in health and mind than we, the wearers of black and gray, who make so drab and

melancholy a mess of life. If the suggestion is followed it will seem rather strange to see the "flappers" among the male population going down the main street with a riot of color and bloomers, low necked shirts with lace collars and sleeves, and transparent silk hose of any length. Perhaps we are even coming to a hat twisted into some fantastic shape and adorned with ribbons and feathers. We may even affect brassieres, but no, we must not do that for most of the female population have cut out those things. Seriously though, we do think that men have been as much a slave to fashion and custom as have the women, for were it not so we would not roast in the summer time with our high shirts, tight collars and dark colored coats and trousers, worn by every self-respecting man because of the dictates of social custom or fashion. There really is no sense in poking fun at the female of the human species for following the dictates of social custom or fashion when men, though their clothes may not be so variegated, are if anything worse slaves to custom.

THERE seems to be a veritable epidemic of malpractice suits in Indiana at the present time. Indianapolis furnishes eleven suits, but there are few cities of any size in the state that do not have one or more suits threatened or pending. As usual most of the suits have no rational cause for action, and in very few of the suits pending can reputable lawyers be found linked up with the prosecution. One of the reasons given for the increase in the number of malpractice suits is that quite recently one or two suits have been settled out of court by the payment of indemnity in order to avoid the publicity and harm threatened by bringing the suit to trial, even though no rational basis existed for the bringing of the suit. We can quite understand why any physician would like to sidestep a malpractice suit, no matter how innocent he may be, but when any physician is practically blackmailed into paying indemnity to avoid a suit, he encourages the bringing of other suits. No medical man, no matter how prominent and competent he may be, is immune to the trumped up charges of a dissatisfied patron and a resulting malpractice suit brought by a shyster lawyer, so it behooves every medical man to protect himself by malpractice insurance. The medical defense feature of our Association is a valuable perquisite that goes with membership in the Association, and every member should realize that fact and make it a point to insure uninterrupted protection by continuing membership in good standing by the prompt payment of dues. Delinquency means loss of medical defense, and it is a strange trick of fate that usually catches the delinquent with a malpractice suit when he has no protection. There are some examples of that kind here in Indiana, and those who have paid the penalty have concluded that it is better to be safe

than sorry, so hereafter they are going to pay their medical society dues on schedule time.

ANY controversy should be won on its merits, no matter what its nature. The issue should not be clouded by misrepresentations, falsehoods, and resort to personal abuse. We believe that all sensible people are convinced that prohibition would be a good thing if it could be enforced, but several years of effort to enforce prohibition, aided by the expenditure of millions of dollars in money, has not accomplished the purpose, and even many of those who are strong for prohibition, now are willing to admit failure, and recognize the fact that the effort has produced many evils that offset any good accomplished through the Volstead Act. Discussion of the subject on the part of the fanatics has been attended by misrepresentations, falsehoods, and calumny, and quite recently here in Indiana in unwarranted attacks upon our judges and courts. Newspapers all over the country have carried out balloting referendums which though not patronized by all the people have been patronized by enough to show the overwhelming sentiment in favor of some modification of our prohibition laws. This balloting has had the condemnation of the fanatical prohibitionists, and now the effort to secure a national referendum on the subject is meeting their violent opposition without consistent reason for it. Evidently they are afraid of an overwhelming sentiment that will discredit their efforts and make known the wishes of a majority of the people in a matter that deserves consideration from their standpoint. We are opposed to a return of the saloon, as we also are opposed to the sale and consumption of alcoholic beverages if possible to prevent the same, but it is time to look conditions squarely in the face and realize that so far as absolute prohibition is concerned we have been putting our heads against a stone wall without making anything more than a dent in it. We also are of the opinion that had the leaders in the anti-saloon league and some other prohibition organizations been less inclined to a distasteful and in some instances deceitful form of radicalism in their efforts to force prohibition upon the people, they would have had more moral support from many sources.

DR. RICHARD C. CABOT, of Boston, has taken pen in hand and written on the subject, "Ethics in the Medical Profession," which under another caption, "Adventures on the Borderland of Ethics," has been published in the *Survey Graphic* for March, 1926. Following a rather lengthy preface, which points out that ethics in medical men is very largely a question of example and environment, aided perhaps by inherent tendencies, Dr. Cabot concludes with a rather lame defense of certain forms of contract practice, and an explanation concerning his association with the Life Extension Institute, which latter enterprise has come in for severe condemnation at the hands

of the House of Delegates of the A. M. A. As might be expected, reprints of Dr. Cabot's article are distributed freely to the medical profession, and from the fact that they come from New York it is not a bad guess to suppose that they are being sent out by the Life Extension Institute in an attempt to bolster up the cause of that enterprise.

We quite agree with some men who contend that you cannot enforce a code of ethics, for now and then a doctor will transgress all the rules of ethics and propriety in an endeavor to further his own interests in one way or another, and heretofore our disciplining has been confined to the little fellows in the medical profession, whereas the big ones, equally as guilty, have escaped. There have been altogether too many men in high places who have taken "adventures on the borderland of ethics," and the roster of the Life Extension Institute looked like a page from "Who's Who" until the Judicial Council of the American Medical Association had the commendable nerve to point out the fact that medical men, whether occupying high places or not, are not to be recognized as righteous when they, figuratively speaking, sell their souls for a mess of pottage. Some of the derelicts occupying high places in our profession have been doing a lot of explaining that does not explain, while others possessing a little more inherent sense of the eternal fitness of things have frankly admitted that they were wrong and not only offered their sincere apologies but a promise to the effect that hereafter they will go straight. There is room on the mourners' bench for a few more of that kind, and we take our hats off in sympathy and admiration for such men to whom we offer the right hand of fellowship.

DEATHS

S. J. LISMAN, M. D., of Oaktown, died February 20th, aged eighty-four years. He graduated from the Medical College of Ohio, Cincinnati, in 1872.

E. M. EVANS, M. D., of Mecca, died February 20th, aged sixty-one years. Dr. Evans was graduate of the Pulte Medical College, Cincinnati, in 1895.

WILLIAM A. FRITSCH, M. D., of Evansville, died February 13th, aged eighty-five years. He graduated from the Medical College of Ohio, Cincinnati, in 1881.

C. A. McNEIL, M. D., aged fifty years, died at his home in Indianapolis, February 19th. Dr. McNeill graduated from the Medical College of Indiana, Indianapolis, in 1901.

I. N. PRESLEY, M. D., of Ellettsville, died February 28th, at the home of his daughter in Bridgeport, Illinois. Dr. Presley was eighty-one

years old. He graduated from the Beach Medical Institute, Indianapolis, in 1885.

H. E. KELLER, M. D., of Decatur, died February 22nd, aged fifty-two years. Dr. Keller graduated from the Curtis Physio-Medical Institute, Marion, Indiana, in 1894.

E. E. GRAY, M. D., of Bicknell, died at the home of his daughter in Linton, Indiana, February 18th. Dr. Gray was sixty-three years of age. He graduated from the Marion-Sims College of Medicine, St. Louis, in 1892.

J. H. STORK, M. D., of Huntingburg, died March 12th, aged sixty-seven years. Dr. Stork graduated from the Kentucky School of Medicine, Louisville, in 1888. He was not in active practice at the time of his death.

A. C. WILLIAMS, M. D., of Reynolds, died March 17th, aged thirty-seven years, death resulting from pneumonia. Dr. Williams was a graduate of the Indiana University School of Medicine, Bloomington-Indianapolis, in 1912.

W. H. H. MOORE, M. D., of Lafayette, died February 6th, aged forty-six years. He was a member of the Tippecanoe County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association. He graduated from Rush Medical College, Chicago, in 1906.

O. G. BLANKENBAKER, M. D., of Dudletown, died February 13th, aged forty-six years. Dr. Blankenbaker was a member of the Jackson County Medical Society, the Indiana State Medical Association, and the American Medical Association. He graduated from the Hospital College of Medicine, Louisville, in 1904.

C. C. GRANDY, M. D., of Fort Wayne, died February 12th, aged forty years. Dr. Grandy graduated from Rush Medical College, Chicago, in 1911. He was a member of the Fort Wayne Medical Society, the Indiana State Medical Association, the American Medical Association, the American Roentgen Ray Society, and the Radiologic Society of North America.

DEATH OF PROMINENT SPECIALIST

THE Tippecanoe County Medical Society suffered the loss of one of its most valued members and the Lafayette community in general the services of a well known eye, ear, nose and throat specialist as well as enthusiastic civic worker, in the passing of Dr. George F. Keiper, who was found dead in bed at his home on Thursday morning, March 18th. Death is attributed to a stroke of apoplexy.

The sudden demise of the noted and highly esteemed medical specialist was a distinct shock

to a legion of friends and acquaintances throughout the county and state. Although not feeling well for several days previous, Dr. Keiper had been about his hospital duties and office work as usual, and his illness was not considered more than a passing indisposition. When he failed to appear for breakfast at his usual time Thursday morning it was believed by his housekeeper, Miss

that city March 26, 1866. He was the son of one of the community's pioneer physicians, Dr. Christian Butz Keiper and Mary Ann Fleming Keiper. Receiving his early education in the public schools of Lafayette, he later attended and graduated in 1887 from DePauw University. Subsequently he became a student at the University of Michigan where he was awarded a master's



GEORGE F. KEIPER, M. D.,

Hannah Strantz, that he was merely sleeping late. She became alarmed, however, an hour later and called the house man, who discovered Dr. Keiper dead in bed. Dr. George K. Throckmorton, whom Dr. Keiper had consulted upon several recent occasions, was summoned and stated the belief that death had occurred about midnight.

Dr. Keiper, who was widely known as an authority on diseases of eye, ear, nose and throat, was a native of Lafayette, having been born in

degree from the department of medicine and surgery in 1890. He also attained an M. D. degree and later did post-graduate work in London and Vienna in 1913. He received his Indiana license in 1890.

The history of the success and growth of St. Elizabeth Hospital, Lafayette, is in no small measure attributed to Dr. Keiper's close friendship and staunch support of the institution, of which he was a staff member for thirty-five years. He

assisted in organizing the present nurses' training school and was a lecturer in the school for many years. He also was a member of the staff of St. Anthony's Home, the Lafayette Home Hospital, St. Joseph's Orphanage, the Children's Home and the Indiana State Soldiers' Home. In addition Dr. Keiper was eye, ear, nose and throat specialist for the Monon and Nickel Plate railroads and consulting specialist for the Wabash Valley sanitarium.

From 1891 until 1925, Dr. Keiper served as expert eye and ear examiner for the bureau of pensions department of interior. When soldiers were stationed at Purdue University during the World War, he was in charge of eye, ear, nose and throat work at the military camp. He also was a member of the Indiana Council of Defense, the state Red Cross Commission and chairman of the Tippecanoe County Advisory Board.

Dr. Keiper was greatly interested in educational activities, having served as a member of the Lafayette School Board from 1915 to 1918, and as a trustee of DePauw University from 1898 to 1925. He was a Fellow of the American College of Surgeons, a member of the Indiana State Medical Association and the Indiana Academy of Ophthalmological and Otolaryngological Society of which he served as vice-president in 1898-99, and chairman in 1910-11. He also held the office of vice-president of the American Medical Association in 1917, and served a term as president of the Indiana State Medical Association and held similar office in the Tippecanoe County Medical Association.

Fraternally, Dr. Keiper was active in a number of organizations. He was a 32nd degree Mason, having joined Lafayette Lodge, F. and A. M. in November, 1890. Masonry to him was as much a science as his own profession and to it he devoted much study. He also was deeply interested in DeMolay work. As a member of Trinity M. E. church, he served for a number of years upon the official board of the parish and was a stockholder in the Battle Ground Camp Meeting Association. He was one of the oldest members of the Lafayette Rotary Club and his life was a living example of the Rotary motto, "He profits most who serves best." He also belonged to the Lincoln Club for many years and to Phi Delta Theta national fraternity and the Acacia fraternity at Purdue. Politically, Dr. Keiper was a member of the Republican party and took an active part in affairs of the organization.

Recognized by his associates as one of the most able specialists in his line in the country, Dr. Keiper held high the ethics of the profession. His pleasing personality endeared him to a wide circle of friends and in his civic efforts he always held the needs of the community above his own personal requirements.

United in marriage July 9, 1890, to Miss Mary Alma Lloyd, of this city, Dr. and Mrs. Keiper

were the parents of two children, Mrs. Margaret Lloyd Dailey, of Chillicothe, Mo., and Dr. George F. Keiper, Jr., of Los Angeles, Calif. Mrs. Keiper died March 9, 1920, and Dr. Keiper never fully recovered from the sad blow. Surviving besides the son and daughter is a brother, Frank Keiper, of Rochester, N. Y., and a sister, Mrs. Elizabeth Meachant, of Danville, Ky.

Hundreds of friends called at the Keiper home to view the remains and also at Trinity M. E. church where the body lay in state for several hours preceding the funeral services, which were conducted on Monday afternoon, March 22nd. The attendance at the funeral taxed the capacity of the auditorium. Special groups of seats were reserved for members of the Tippecanoe County Medical Society, the Rotary Club and Knights Templars. Short talks were given by Dr. W. W. Sweet, of DePauw University, and Rev. T. F. Williams, while prayers and scripture readings were given by Dr. Frank K. Dougherty, of Lafayette, and Rev. George W. Switzer, of St. Joe, Mich.

The pallbearers were: Active, Dr. F. S. Crockett, Dr. George K. Throckmorton, Dr. Earl Van Reed, Dr. Charles Hupe, Dr. E. C. Davidson, Samuel Souders, Paul R. Thompson and Clarence P. White. Honorary, Dr. George F. Beasley, Dr. W. R. Moffitt, George R. Durgan, Dean Stanley Coulter, Levi Oppenheimer, O. W. Campbell and Charles C. Pyke. The Knights Templars conducted their ritualistic ceremonies at the burial in Springvale cemetery.

A beautiful tribute to Dr. Keiper was issued by the Sisters of St. Francis of St. Elizabeth Hospital. It follows:

"The Angel of Death has come in the stillness of the night to our much beloved Dr. George Frederick Keiper.

"The news of his demise was a great shock and profound sorrow filled our hearts upon learning that death had claimed one who has been our most loyal and staunch friend and advisor. His every thought and energy was directed toward alleviation of suffering, assisting the poor and needy and laboring arduously and unselfishly in behalf of public welfare.

"His guiding hand has assisted in steering our hospital over shoals and difficulties to progress and success. We realize the debt of gratitude we owe him, yet words cannot express the sentiments of our inmost soul and therefore we shall only exclaim: 'May Almighty God be his reward exceeding great.'

"May our Heavenly Father console his devoted children in their sad bereavement.

"SISTERS OF ST. FRANCIS,
"St. Elizabeth Hospital."

Significant of the high esteem in which Dr. Keiper was held, a special guest night dinner of the Lafayette Rotary Club was cancelled and, instead, a memorial service in honor of the deceased was held. Addresses during the memorial program were given by Dr. George K. Throckmorton, who recalled Dr. Keiper's life as a physician; Dr. T. F. Williams, pastor of Trinity M. E. church, who spoke on Dr. Keiper's religious life,

and Dean Stanley Coulter, of Purdue University, who paid eloquent tribute to Dr. Keiper as a Rotarian. Several musical numbers in keeping with the event concluded the program. Dr. Keiper served as second president of the Lafayette Rotary Club.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

ARTICLES of incorporation for the Vigo County Medical Society were filed February 11th.

DR. C. M. WHITE celebrated the completion of fifty years of medical practice in Clinton, Indiana, March 11th.

DR. DANIEL S. ADAMS has been taking some post-graduate work in eye and ear diseases in New York City.

DR. ROYSE DAVIS, of Decker, and Mrs. Elizabeth Oexmann, of Vincennes, were married at Evansville, March 8th.

DR. AND MRS. M. C. CLOKEY, of Huntington, Indiana, have announced the birth of Mitchell Chase Clokey, Jr., on February 18, 1926.

THE Taylor Instrument Company announces the seventy-fifth anniversary of its organization this year.

THE Tippecanoe County Medical Society held a meeting at Lafayette, March 11th. Dr. Henry S. Plummer, of the Mayo Clinic, presented a paper on "Endocrinology."

THE Muncie Academy of Medicine held a dinner meeting at the Hotel Roberts, March 12th. Dr. Irvin Abell, of Louisville, Kentucky, presented a paper on "Acute Pancreatitis."

THE Cunard Steamship Company, 25 Broadway, New York, will mail to any physician, on request, and free of charge, the "official medical guide of post-graduate work in Hungary."

THE Northeastern Indiana Academy of Medicine held a meeting at Gawthrop Inn, Kendallville, March 11th. Dr. Charles Schott, of Chicago, addressed the meeting, his subject being "The New-Born Baby."

DR. C. H. MYERS, of South Bend, completed a half century of medical practice on February 25, 1926. Dr. Myers commenced the practice of medicine in South Bend in 1876, and has spent the entire time in South Bend.

MEMBERS of the Cass County Medical Society and the Logansport Dental Society, held a meeting in the Rose Room of the Barnes Hotel at Logansport, February 18th. Dr. Robert M. Moore, of Indianapolis, presented a paper.

THE Madison County Bar Association and the Madison County Medical Association held a joint meeting March 16th. Dr. A. S. Jaeger, of Indianapolis, presented a lecture on "The Sex Problems of Divorce and Unsatisfied Humanity."

DR. A. RANIER, of Remington, Indiana, entertained the Jasper-Newton Medical Society, March 25th. Dr. Dennis Crile, of Chicago, was present and gave a very interesting and instructive address on "The Thomas Splint."

A PAMPHLET containing information on "Standardizing on Sizes and Makes of Hypodermic Syringes and Needles" has been prepared by The Becton-Dickinson and Company of Rutherford, N. J., and copies will be sent to physicians upon request.

A PROMINENT business man of Helmsburg, Indiana, has announced that they need a physician in that district. Information is given as follows: The town has 125 inhabitants, and is in a good community. Nearest physician on the north is ten miles; on the south, six miles; on the east or west, twenty miles.

THE fifty-third annual meeting of the Northern Tri-State Medical Association was held at Lima, Ohio, April 13, 1926. It was a joint meeting of The Northern Tri-State Medical Association, St. Rita's Clinic, the Northwestern Dental Association, the Northwestern Ophthalmological Society and the Academy of Medicine of Lima and Alien County.

THE March program of the Grant Medical Society was given at the Spencer Hotel, March 23rd. Dr. Frank Smithies, of Chicago, presented a paper on, "Newer Conceptions of the Mechanism Causing Peptic Ulcer and Its Bearing Upon Treatment; With a Report Upon the Results of non-Surgical Management by the Author's 'Physiological Rest' Regimen."

THE American Pharmaceutical Association has available a fund of \$450, which will be used for the encouragement of research. Investigators who desire financial aid in their work should communicate with the chairman of the research committee, H. V. Army, 115 West Sixty-eighth Street, New York, before June 1st, giving their record and outlining the line of work for which the grant is desired.

THE American Board of Otolaryngology has arranged for two examinations during the month of April as follows: St. Paul's Sanitarium, Dallas, Texas, Monday, April 19th, at 9 a. m.;

Stanford University Medical School, Clay and Webster streets, San Francisco, California, Tuesday, April 27th, at 9 a. m. Applications may be secured from the secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Lederle Antitoxin Laboratories:

Ragweed Combined Pollen Antigen-Lederle.

H. K. Mulford Co.:

Lamb's Quarters Pollen Extract-Mulford, Fourth Series.

Ragweed Pollen Extract (Fall)-Mulford, Fourth Series.

Timothy Pollen Extract (Spring)-Mulford, Fourth Series.

Wormwood Pollen Extract-Mulford, Fourth Series.

Swan-Myers Co.:

Elm Concentrated Pollen Extract-Swan-Myers.

Yellow Dock Concentrated Pollen Extract-Swan-Myers.

CORRESPONDENCE

MIAMI AS IS

Editor of THE JOURNAL:

Miami, Florida, March 15, 1926.

Since you have been so kind to think it might be interesting I will try to tell you of the situation here in Miami. While at one time rents were all out of reason and few apartments were available, at present in this locality there are hundreds of vacant rooms and you can almost set your own price for them. Even in some of the large hotels an outside room with bath is five dollars per day for one persons, and four dollars when occupying a double room.

I was in an apartment on Miami Beach yesterday that rents for \$200 per month; it had a bed room with twin beds, a large living room with a settee that could be converted into a double bed, a dining alcove, kitchenette and bath room. For four people that would mean less than \$2.00 per day apiece. This was within three blocks of the ocean and less than two blocks of the Lincoln Hotel in the very best part of Miami Beach.

Even at the resort hotels, such as the Lincoln, that are on the American plan, I note that several Hoosiers are paying the same price as I did last year.

I hope this will show you that as far as hotels and apartments are concerned, prices are stabilized now. The above prices are for the winter season which are much higher than at other times, and are probably due to overbuilding rather than lack of visitors. I notice no difference from last winter, and summer also, in the congestion of traffic. With the Venetian causeway now open, beach traffic is no problem.

Now as to food. If you are "keeping house" as we Hoosiers say, some foods are higher. Butter, eggs, milk and frozen meats are higher, staple articles are about the same as in Indiana. If you eat at cafes and hotels, excellent meals can be had at no higher prices than in any large city. If you want cabarets of course you have to pay for them.

Carl Fisher and his associates have done everything in their power to keep living expenses down. Yet when such a terrific increase of population occurs, some prices cannot be controlled. Dr. Lowry, health officer of Miami, tells me of sixty-eight auto camps and tent sites in Miami alone, and the postmaster is delivering mail to 350,000

people here. If Anderson suddenly expanded to the size of Indianapolis, and had but one railroad, and an embargo on freight and express, the same conditions would be present.

As to the medical situation, there has been too few physicians to take care of this sudden increase in population. This has been due mainly to the State Board here trying to keep out quacks, etc., by a most rigid examination. It has been a case of "The survival of the fittest" I suppose, as any doctor who is willing to study can pass the examination. I found it a good post-graduate course, for it compelled me to review many branches of medicine in which I had become rusty. I have talked to many other doctors here, some at Hollywood, Ft. Lauderdale, and Palm Beach. All tell me they are working hard; some are leaving on vacations for rest from overwork. My good friend Olin W. Kennedy, general manager of the Miami Herald, formerly with Hoosier papers, tells me that overwork killed two perfectly good Indiana physicians here, and warns me accordingly.

It will not be long until there are sufficient physicians to supply Florida, as the number applying for examination is large. The dental situation is not so good. Also a rigid examination must be passed. Several dentists have told me that the population needs twice as many as are here now. In our office are two well known dentists. They are turning away work every day to other dentists, for a sore tooth will not wait six weeks for an appointment. When I told Dr. Fred Hinshaw, the dean of the Indiana Dental College, how many patients I actually saw handled in one day by one dentist, he was astounded. So far, I haven't seen any advertising dentists here.

I must not forget to mention that we have a fine medical society here. It meets once a month; usually a dinner meeting, with a good address afterwards. The State Medical Journal is booming under the excellent editorship of Dr. Shaler Richardson, of Jacksonville.

Just a word as to medical practice here. Large numbers of asthmatic patients come here expecting instant relief. Some get it. Some don't. Nearly all are improved. Many people do not dress warmly enough here. We have sunshine almost every day—there has been one day I remember since November 15th that the sun didn't shine at all. But it may be cool even with sunshine, and usually cool in the evening. All tuberculars that I have seen have been improving. One who spent last summer here gained a pound a week. If tuberculosis is acquired here, the best results are a change to another climate. But coming here with tuberculosis, acquired elsewhere, the patients seem to do well. Of course the best results are in nephritis and cardiac cases. The elimination through the skin is perfect. After a sun bath on the beach, then a plunge into the ocean, and more sun baths, is the regime. The sun baths alone are used in acute bronchitis and convalescence from pneumonia. Three boys from Chicago, with bronchitis, I put out on an upper balcony stripped to the skin. Excessive perspiration was thereby induced and in one day all fever had left them. I am trying similar methods in high blood pressures and angina pectoris. One of my patients, a physician, has a systolic of 196 mm. with angine pectoris, and nephritis. It has not cured him, but by lying in the sun all day and a few dips in the ocean, he is able to live comfortably. He has done that here since September, 1925, and tells me it is the only medicine that has helped him.

Another patient with a constant systolic of 242 mm. is comfortable and complains of no other symptoms at all. Today I saw a lady from Cleveland, Ohio, who came here some months ago with anemia. She has put on much weight and evidently has no more anemia. Several cases of psoriasis and other skin affections have been benefited. Neurasthenia as well as bone tuberculosis have seemingly been cured. I do not believe that sunshine, heat and ocean baths will cure everything, but if any disease is amenable to them it can be given better treatment here in the winter than any other place in the United States that I know about.

With nature doing all she can to cure diseases here, it is too bad that man has not provided the needed accessories to complete the cure. There is no sanatorium on the beach or near here. Many people rent apartments facing the ocean beach, even people living in Miami, in order to get the benefit of the early morning sun. Many who can't afford apartments park their cars—usually fitted up for sleeping—along the beach. It is to be hoped that some one will endow a great sanatorium here, for rich and poor, so that completed cures can take place.

I hope I have not wearied you with my little talk on Miami without mentioning real estate once. Please note that I didn't come here from choice, but was compelled to take some measures for the relief of a persistent sciatica, which so far has become a thing of the past.

FRANK W. FOXWORTHY, M. D.,
310 First National Bank Building,
Miami, Florida.

DIPHTHERIA PREVENTION IN INDIANA

Indianapolis, March 20, 1926.

Editor THE JOURNAL:

I have just read your editorial in the March number of THE JOURNAL on, "Diphtheria Prevention." I am familiar, of course, with the co-operative effort in New York State to eradicate diphtheria from that state and have been much interested in the effort. I am glad you gave this matter prominence in THE JOURNAL, because I have had in mind a similar effort in the State of Indiana, and your editorial will bring the matter to the attention of physicians generally throughout the state.

A campaign of this kind to be successful must have, of course, the intelligent and sympathetic co-operation of the medical profession and, in fact, as it seems to me, the medical profession should lead. The State Board of Health has been carrying on an educational campaign of this kind continuously in the only way such a campaign can be carried on by the Health Department alone, namely, by carrying the message direct to the people. Splendid co-operation has been given by a large number of physicians in all parts of the state, and in every community where the physicians have supported the efforts of the State Board of Health the result has been a large number of children have been immunized against diphtheria. On the other hand, it too frequently has happened that the physicians of a community were apathetic, and in some instances physicians have opposed the efforts of the department and in such communities little has been accomplished. That the public is interested in protecting their children against this disease is shown by the fact that in many communities of the state, local groups and organizations have taken the initiative, regardless of the attitude of their physicians, and have carried on an educational campaign that has been really quite effective.

In the city of Martinsville a business man took the initiative and offered to bear all expense necessary in all cases where school children were unable to pay the expense involved. In numerous instances Parent-Teachers' Associations made up of the parents and teachers have taken the initiative. In the city of Seymour the Central Pharmacal Company, in co-operation with the clubs of that city, put over a campaign that resulted in the immunization of some 700 school children of that city. In White County the Farm Federation, under the leadership of the county agricultural agent and the county nurse, put over a campaign of Schick testing and toxin anti-toxin immunization in the schools of that county. These are typical of the interest of parents, teachers, and the public generally in the prevention of diphtheria.

To my mind there is a wonderful opportunity for the medical profession, through the State Association and county medical societies, to take the lead in a matter of vital public interest that cannot but redound to the honor of the profession. So far as the State Health Department is concerned, we are ready to go at any time and will continue to carry out in the best possible way a campaign for the control and prevention of diphtheria

in Indiana, but we can only do so much along this line while there is so much more that might easily be done. I know that every organization in the state, the Parent-Teachers' Association, the State Department of Education, the State Teachers' Association, the Tuberculosis Society, the Farm Federation, the Federation of Women's Clubs and others will gladly join in a movement of this kind. The State Health Department is ready to take the initiative, but I sincerely believe that the State Medical Association should join in this initiative.

As a practical suggestion I shall be glad to meet with a committee of the Association or with the Association Council at any time to discuss plans for a state-wide educational effort along this line. Co-operation of the various organizations mentioned can be secured, I know, and I know also that the schools, both the public and parochial schools of the state, will lend every effort in such a movement. There will be opposition, of course, but the opposition will have but little effect beyond making a noise.

I am glad you have taken this matter up in an editorial way. I hope it will not end with that.

Very truly yours,

WM. F. KING,
State Health Commissioner.

WFK:CD.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION BUREAU OF PUBLICITY

February 24, 1926.

Meeting called to order at 5:00 p. m.

Present: Wm. N. Wishard, M. D.; S. E. Earp, M. D.; Murray N. Hadley, M. D., and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held February 17th read, corrected and approved.

The following bill was approved for payment:

W. K. Stewart Co., one pint ink, 75 cents.

The release "An Unpaid War Debt" for Monday, March 1st, was read, corrected and approved.

Selection of a speaker to fill the request of the Rushville Rotary Club made for Tuesday, March 2nd.

Letter read from the secretary of the Bureau of Health and Public Instruction of the American Medical Association giving the price and details for the distribution of the manual on "Periodic Examinations of Apparently Healthy Persons."

Resolution adopted that each physician in Indiana who is a member in good standing in the Indiana State Medical Association either this year or last year be presented with one of these manuals free of charge, the expense of distribution to be borne by the State Association. The secretary was instructed to write the secretaries of each county society asking that they in turn request members of their county societies to read these pamphlets carefully and preserve them for future reference.

Establishment of a packet library service for Indiana physicians discussed.

Letter received from the executive secretary of the bureau of Legal Medicine and Legislation of the A. M. A., in regard to the approval by the Department of Labor of certain cult schools as schools for immigrant students.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole March 3, 1926.

S. E. EARP,
Acting Chairman,
THOS. A. HENDRICKS,
Secretary.

BUREAU OF PUBLICITY

March 3, 1926.

Meeting called to order at 5:00 p. m.

Present: S. E. Earp, M. D.; Murray N. Hadley, M. D., and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held February 17th, read and approved.

The following bills were approved for payment:

The Kautz Stationery Co.	\$ 3.90
Central Press Clipping Service	5.00
Zacher & Sons, Inc.	7.00
Central Press Clipping Service	5.00
American Linen Supply Co.	1.60
Hume-Mansur Company	2.00

Total\$24.50

The release for Monday, March 8th, "High Cost of Colds," read, corrected and approved.

Report received upon publicity talk before the Rushville Rotary Club, March 2nd.

Letter received from the State Health Commissioner concerning Kings County Medical Society periodic health examination reports.

Letter received from the American Hospital Association asking the secretary of the Indiana State Medical Association to act as chairman of National Hospital Day. Due to the amount of business at headquarters, it was thought best that the secretary should not accept this responsibility at this time.

Letter from editor of the *Daily Times Star*, Wabash, Indiana, received.

Letter from the secretary of the Clark County Medical Society asking for periodic health examination demonstration at a later date, received. The executive secretary was instructed to write the secretary of the Clark County Medical Society asking him to state a definite date for this meeting.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole March 10, 1926.

S. E. EARP,
Acting Chairman.
THOS. A. HENDRICKS,
Chairman.

BUREAU OF PUBLICITY

March 10, 1926.

Meeting called to order at 4:45 p. m.

Present: Samuel E. Earp, M. D.; Murray N. Hadley, M. D., and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held March 3rd, read, corrected and approved.

The newspaper release for Monday, March 15th, "Another Medical Triumph," read and approved.

Request received for a speaker to fill the engagement at Lawrenceburg for a joint meeting of the Kiwanis Club and the Dearborn County Medical Society.

Request received from the Indiana State Dental Association for a speaker to appear upon the program of the State Dental Convention and tell of the work of the Publicity Bureau. This meeting is to be held in Indianapolis, May 17th-20th.

Letter received from the secretary of the Wisconsin State Medical Society in regard to the packet library, and the secretary was instructed to co-operate with Indiana University in the establishment of this service.

Letter received from the chairman of the Council of the Indiana State Medical Association, objecting to the expenditure of funds by the Publicity Bureau for the purchase of "Manuals of Suggestions for the Examination of Apparently Healthy Persons." This is the official publication of the American Medical Association upon this subject and the Publicity Bureau had authorized the presentation of this manual to each member of the Indiana State Medical Association.

Letter from the executive secretary of the Bureau of Health and Public Instruction of the American Medical Association congratulating the Publicity Bureau upon its decision to send copies of the manual to each member of the Indiana State Medical Association, was read.

The bureau authorized the secretary to make arrangements for a radio broadcast upon health once or twice a month from station WFBM, Indianapolis.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole March 17, 1926.

S. E. EARP,
Acting Chairman.
THOS. A. HENDRICKS,
Secretary.

BUREAU OF PUBLICITY

March 17, 1926.

Meeting called to order at 4:45.

Present: S. E. Earp, M. D.; Murray N. Hadley, M. D., and Thomas A. Hendricks, executive secretary.

The minutes for the meeting on March 10th were read, corrected and approved.

The following bills were approved for payment:

A-I Letter Shop, Inc.	\$ 2.61
Charles N. Smart	6.00
Dolbey & Van Ausdall	4.00

Total\$12.61

The release upon "Measles" for publication Monday, March 22nd, read, corrected and approved.

Speaker selected for the joint meeting of the Kiwanis Club and the Dearborn-Ohio County Medical Society at Lawrenceburg, Indiana, Tuesday, March 30th.

The secretary was instructed to complete arrangements for broadcasting health talks by radio.

Copies of the report of the Committee on Public Health on Periodic Health Examinations by the Kings County Medical Society, Brooklyn, New York, were given to members of the Publicity Committee.

Letter in regard to benefits of package library received from Wisconsin Medical Society.

Publicity articles prepared by West Virginia and Wisconsin Medical Societies reviewed by the bureau.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole March 31, 1926.

S. E. EARP,
Acting Chairman.
THOS. A. HENDRICKS,
Secretary.

ABSTRACTS

STUDY OF NINE HUNDRED AND EIGHTY-FOUR DEATHS IN THE PUERPERAL STATE IN MASSACHUSETTS

Susan M. Coffin, Mary F. DeKruif, Mabel A. Southard and Angeline D. Hamblen, Boston (*Journal A. M. A.*, Feb. 6, 1926), give the results of a study of all the deaths (984) occurring in Massachusetts during the years 1922 and 1923 among women six months or more pregnant, from causes immediately related to pregnancy or childbirth or from causes in which pregnancy or childbirth was a controlling factor. Deaths occurring during the puerperal state from certain complications, such as heart disease, acute infections and a miscellaneous group, are included. Septicemia, toxemia and hemorrhage, causes of death which may be called generally preventable, were responsible for 58 per cent of the deaths. In 591 cases, operative procedures figured. Lack of adequate prenatal care was evident in 89 per cent of the cases. Poverty as a cause of maternal mortality did not stand out in this series. Of the 1,003 babies who were born to the 984 mothers, 289 were stillborn and 141 died early, a total loss of 430 infants which, added to the maternal deaths, make a total loss of life in connection with pregnancy and childbirth, of 1,414.

ODORLESS METHOD OF EXTERMINATING FLEAS

Here is the treatment to get rid of fleas advised by Dr. Louis Gershenfeld in *Hygeia* for November. It concerns a small ice cream plant. The main floor of the plant was of cement construction. It was infested with fleas. Since the ice cream making machinery was on this floor, fumigation and insecticides, most of which possess strong odors, could not be used. The entire floor was covered with a mixture of sea salt and sawdust. Water was then applied. This was allowed to remain on the floor over night. The operation was repeated after an interval of five days. The fleas were killed by this treatment.

PEPTIC ULCER FROM THE INTERNIST'S STANDPOINT

Lewellys F. Barker, Baltimore (*Journal A. M. A.*, Oct. 31, 1925), admits that despite the enormous number of clinical, pathologic-anatomic and experimental researches directed toward the solution of the problems of etiology and toward the recognition of the successive links in the pathogenic chain of peptic ulcers, much still remains obscure. The familial tendency to ulcer, and the relationships of ulcer to habitus, to diathesis, to vascular (especially capillary) anomalies, to the endocrine make up, and to disharmonies of the vegetative nervous system—all speak in favor of a constitutional predisposition, which invites further investigation. On the other hand, (1) the predominant localization of the ulcers in a special narrow pathway in the stomach, in the first portion of the duodenum, and at, or near, the margins of gastroenterostomy openings; (2) the differences in fate of acute erosions occurring in the regions mentioned and of erosions occurring elsewhere; (3) the relationships of ulcers to the degree of acidity of the fluids that bathe the parts and to the force of propulsion of those fluids; (4) the frequent coexistence of ulcers with foci of bacterial infection (in distant parts of the body as well as in the mucosa of the stomach and duodenum), and (5) the periodicity of exacerbations and recurrences of ulcer symptoms, relative to seasons of the year or to periods of physical and psychic stress and strain—all these are suggestive of the importance of environmental influences (mechanical, thermal, chemical, bacterial and psychic), acting directly or indirectly or predisposed areas of the gastro-intestinal tract. There is fairly general agreement at the moment that, in most cases if not all, a multidimensional etiology is responsible, and that both constitutional and conditional factors play a role. The separation of the problem of genesis into two parts, (1) that of the origin of the primary nutritive disturbance of the mucous membrane that permits of the loss of substance through autodigestion, which we speak of as an "erosion" or "acute ulcer," and (2) that of a gradual transformation of such an acute lesion into a chronic, round and more or less funnel-shaped, indurated ulcer extending into the deeper tissues, would seem to constitute a real advance. A striking feature of nearly all cases in which a diagnosis of gastric or duodenal ulcer is made is the long history of subjective digestive disturbances that has usually preceded. The patients recall various discomforts—burning, bloating, gaseous eructations, flatulence, heavy feeling in the abdomen, constipation, etc.—that they have experienced, often over a period of years. The majority of patients, certainly, suffer from epigastric pain, and the character of this pain is often very significant, not only for the arousal of the suspicion of the existence of an ulcer but also as giving the clue to the site of the lesion. Periodicity of the pain with seasonal recurrence is much more commonly encountered in duodenal ulcer than in gastric ulcer, though it may sometimes be observed in the latter. The history only rarely deceived us in the case of duodenal ulcer, whereas in the case of gastric ulcer, the most alert diagnostician will frequently be mis-

lead if he relies on subjective symptoms alone. Tenderness at certain pressure points (front and back), evidences of muscular defense in the right upper rectus, and the state of the general nutrition may be of some aid in the recognition of ulcer, but these signs are notoriously unreliable. Nor dare the study of the stomach contents, of the feces and of the blood be accredited with as much usefulness in the diagnosis of peptic ulcer as many textbooks would lead one to believe. Gastric hyperacidity is usually marked in about three-fourths of the cases of duodenal ulcer, whereas in only about one-fifth of the cases of gastric ulcer is it exhibited. The acidity conditions, even on fractional analysis, are very variable in both, so much so that one comes, as his experience grows, gradually to rely less rather than more, on them for diagnostic differentiation. A combination of (1) gastric hypersecretion (gastrousuccorrea), (2) prolonged emptying time of the stomach, and (3) pylorospasm, the so-called "pyloric syndrome," which can be demonstrated, when it exists, by special examinations of the stomach contents alone, is more or less characteristic of "juxtapyloric ulcer;" but the dangers of passing the stomach tube in patients with either gastric or duodenal ulcer should not be underestimated. The examination of the feces for occult blood after three days of hemoglobin-free diet is a valuable technical method, but the absence of blood does not exclude ulcer; most ulcer patients that show occult blood in the feces can be made occult blood free by a few days of appropriate medical therapy. An anemia of the secondary type with marked reduction of the hemoglobin content of the blood may give the clue to repeated small hemorrhages from ulcer. In gastric ulcer, the pain is prone to appear as soon as food is ingested or soon afterward, subsiding gradually but appearing again when more food is taken, so that the patient comes to dread eating and often starves himself because of this dread. When the ulcer is at the cardiac orifice, the pain may come during the swallowing of coarser food; when it is at the lesser curvature, it may not appear until from a few minutes to an hour after eating; when it is near the pylorus, the pain may be still later in appearance (though usually within two hours) and is sometimes relieved by vomiting or by gaseous eructations. In duodenal ulcer, the time of occurrence of the pain and its relation to the ingestion of food are usually very different from the description just given of the behavior in gastric ulcer, for in duodenal ulcer the pain is prone to occur from two to four hours after eating or in the night, and, moreover, if the ulcer is uncomplicated, the pain is immediately and completely arrested by the ingestion of food, a fact soon learned by the patient who carries biscuits in his pocket in the day time and has a glass of milk at his bedside at night in order that he may quickly secure relief. Thus, the patient with duodenal ulcer has no dread of eating; on the contrary, he usually has a good appetite, is prone to eat freely of all kinds of food, and often looks robust and even over-nourished, yet the fact should not be lost sight of that there is in reality no history that is constant for either gastric or duodenal ulcer, since either may be symptomless. Hunger pain may sometimes occur in gastric ulcer, and pains closely resembling "ulcer pains" may be experienced in other conditions (cholecystitis, appendicitis, intra-abdominal adhesions, tabs dorsalis, functional gastrospasms, etc.). Moreover, duodenal ulcer and gastric ulcer may coexist. Outspoken hematemesis or melena is strongly suggestive of peptic ulcer but may be due to carcinoma, esophageal varix or hemorrhagic diathesis; even in cholecystitis, in appendicitis, and in splenic anemia, manifest hemorrhage from the gastro-intestinal tract may occur in the absence of ulcer. The so-called premonitory signs of perforation of an ulcer (feeling of bloating, feeling of intestinal blockage, symptoms of localized peritonitis) should be kept in mind, but experience shows that they only rarely are, in themselves, sufficiently distinctive to serve as prophylactic guides.

Too often the excruciating pain and collapse of perforation occur unannounced. Roentgenologic studies are, of course, of the utmost importance in confirming and extending the diagnostic data in ulcer. But reliance is to be placed on roentgen-ray reports only when they emanate from competent roentgenologists. General practitioners and consulting internists see ulcers in the earlier stages and more of the milder cases than do the surgeons, whose experience is largely confined to severer cases, later stages, and complications. It is, therefore, easy to understand the difference in the attitude of these two groups with regard to medical therapy and surgical therapy, respectively. When complications occur that seriously threaten life, surgery should not be delayed. Thus, in cases of perforation (or of threatened perforation) of recurring severe hemorrhage, of organic stenosis, of complicating perigastritis or periduodenitis with adhesions, and of the severer sequelae generally, there can be no question of the necessity of prompt surgical intervention. And in cases in which removal of focal infections combined with well planned and well conducted medical therapy has failed to relieve the symptoms, to prevent frequent recurrences, or to restore a satisfactory state of nutrition, surgical aid should be invoked. On the other hand, most internists and, he believes, many surgeons favor a fair trial of the more conservative forms of therapy in cases other than those just referred to, and especially in all uncomplicated cases, with the aim (1) of relieving the symptoms, (2) of preventing the progress and of promoting the healing of the ulcer or ulcers present, and (3) of removing as far as possible conditions that might be responsible for the development of new ulcers. Time will not permit of a discussion of the details of such conservative therapy; only the main principles can be mentioned. The measures to be applied are mainly of a protective nature. Not alone the ulcer should be shielded; the organism as a whole should be guarded from injuries. Hence, diet, physical and psychic rest, and the removal of toxic and infectious influences are the chief means to be employed; foci of infection within the abdomen as well as extra-abdominal foci should receive due consideration. In planning the dietary, three fundamental features should be borne in mind: (1) the food should be mechanically nonirritating; (2) it should be so chosen and administered as not to increase the hydrochloric acid content of the stomach juice and not to favor hypersecretion, and (3) the food given, while relatively small in volume, should be adequately varied and of a caloric value sufficient to restore and maintain a normal state of nutrition. Any one with a fair knowledge of dietetics should be able to plan a well-balanced diet with no coarse constituents, poor in salt, condiments and extractives, and containing an adequate amount of protein and vitamins, and as much of the caloric-rich carbohydrates and fats as may be needed gradually to increase or diminish the body weight to its calculated ideal. Alcohol, tobacco and strong coffee or tea should be interdicted. Hypersecretion can be combated by making the meals small, with intervals of two hours between them. At the beginning of treatment, rest should be enjoined; there should be a short period of complete digestive rest and a longer period of total bodily rest (in bed) with protection from all disturbing psychic influences. Chronic ulcers are not healed in a month or six weeks, even if a patient remains quietly in bed for that length of time. The abolition of symptoms is by no means synonymous with the healing of the ulcer. Drugs have their place in ulcer therapy, but their value has been overestimated and the amounts used have been excessive. Particularly is this true of alkalis, the free and reckless use of which may be attended by dangers of intoxication. Remedies for the alleviation of spasm (belladonna, hyoscyamus, papaverin, phenobarbital) may be given in small but frequently repeated doses. Cautious intravenous injection of foreign proteins have recently been highly vaunted for the speedy alleviation of ulcer symptoms, and would

seem worthy of further testing. After the symptoms have been relieved and a normal state of nutrition has been restored, the patient should be kept permanently, that is, for the rest of his life, on a protective regimen, the diet, work and recreation being arranged in conformity with this, while the bodily and mental health generally are kept at as high a level as possible. This advice would seem to be valid even for patients who have resorted to surgical intervention. Might not surgical results in cases of peptic ulcer be far better than they are, if, after operation, the patients were always closely supervised and hygienically directed, according to the principles of medical therapy?

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

CONCENTRATED POLLEN EXTRACTS-SWAN-MYERS.—In addition to products listed in *The Journal*, May 30, 1925, p. 1634, the following have been accepted: Bermuda Grass Concentrated Pollen Extract-Swan-Myers; Coastal Sagebrush Concentrated Pollen Extract-Swan-Myers; Elm Concentrated Pollen Extract-Swan-Myers; Johnson Grass Concentrated Pollen Extract-Swan-Myers; Redroot Pigweed Concentrated Pollen Extract-Swan-Myers; Sunflower Concentrated Pollen Extract-Swan-Myers; Sweet Vernal Grass Concentrated Pollen Extract-Swan-Myers; Yellow Dock Concentrated Pollen Extract-Swan-Myers. Swan-Myers Co., Indianapolis, (*Jour. A. M. A.*, February 27, 1926, p. 625).

PROPAGANDA FOR REFORM

ANTISTREPTOCOCCUS SERUM.—For some years the Council has been questioning the value of antistreptococcus serums. These products have been retained in New and Nonofficial Remedies with the caution that on the basis of clinical reports there is perhaps justification for the use of the serum in streptococcus infections, but that there is no scientific basis for it. In consideration of a report prepared by Dr. Emil Novak on the basis of a questionnaire sent to a number of surgeons, gynecologists and obstetricians, the Council voted to retain antistreptococcus serum preparations in New and Nonofficial Remedies provisionally. (*Jour. A. M. A.*, February 6, 1926, p. 417).

FLORENCE FORMULA.—Florence Formula is another of the numerous alleged cures for hayfever and asthma sold on the mail order plan. It is put out by the Florence Products Corporation, Kansas City, Mo. The A. M. A. Chemical Laboratory reports that the "Florence Formula for Asthma, Bronchitis, Catarrh, Short Breath, Hay Fever and Allied Ailments" consisted of mottled, grayish white tablets and that each tablet contained the equivalent of approximately 0.18 Gm. of potassium iodide and 0.0007 Gm. of arsenic trioxide (equivalent to one minim of "Fowler's Solution"). From this analysis it is seen that the Florence Formula has essentially the same composition as another Kansas City medical mail order humbug "Asthma Tabs" examined in the Association's Laboratory. (*Jour. A. M. A.*, February 6th, 1926, p. 435).

SANOCRY SIN.—In spite of the disappointing results from the use of "Sanocrysin" in animal tuberculosis in the careful experiments carried out for the Hygienic Laboratory by Theobald Smith, Wm. H. Park and E. C. Schroeder, it is possible that some renewal of interest may arise as a result of recent papers by European physicians on the use of sodium-gold thiosulphate in human cases of tuberculosis. One naturally views with doubt the value of these reports, since these physicians have discarded the theories originally advanced and, to a large extent also, the use of the antitoxic serum. They thus place the substance in the category of the gold salts used in the therapy of tuberculosis with which a long record of varied experience is available. It is possible that the use of gold may have some value, but there is no evidence at hand today; hence the wisdom of American physicians in

awaiting definite proof of action in animal tuberculosis before using it in the human disease will save much suffering and distress. (*Jour. A. M. A.*, February 13th, 1926, p. 487).

NATIONAL HEALTH SERVICE.—Some time ago the United States Public Health Service issued a warning that the "National Health Service," Washington, D. C., was attempting to capitalize the research work done by the United States government and to confuse the public into believing that it was in some way identified with the Public Health Service of the government. The offices of the National Health Service are no longer in Washington, D. C., but in New York City. The concern is either operated from two addresses—17 West Sixtieth Street and 70 Fifth Avenue—or there are two concerns of the same name. From the first address a so-called "Book of Health," a urinalysis "health service" and a line of fad foods are sold. From the Fifth Avenue address letters are sent to industrial concerns urging them to purchase "a remarkable discovery for kidney disease, which has produced unbelievable results even in extreme cases where all other means have failed." An analysis of Rensano made in the A. M. A. Chemical Laboratory confirmed by pharmacologic tests carried out at the University of Illinois showed that Rensano is essentially milk sugar with a minute amount of alcohol. This inert and therapeutically worthless product is exploited to individuals and industrial plants with the suggestion that working men suffering from such serious conditions as nephritis and diabetes should be given this product in lieu of medical attention. (*Jour. A. M. A.*, February 13, 1926, p. 502).

FORMALDEHYDE FUMIGATORS.—The term "solidified formaldehyde" is used loosely, sometimes denoting dry paraformaldehyde but more generally denoting a solidified mass of soap, tallow, or such substance with formaldehyde. When paraformaldehyde is heated formaldehyde and some sublimed paraformaldehyde are given off. The amount of formaldehyde yielded depends on a number of conditions. In the case of solidified formaldehyde, the concentration of the formaldehyde and the amount of vapor evolved must be known to judge its efficiency. Fumigation as a means of preventing the spread of disease is regarded as far less important than formerly. (*Jour. A. M. A.*, February 13, 1926, p. 505).

ACACIA AND INTRAVENOUS INJECTIONS.—The harmfulness of acacia in the treatment of shock and hemorrhage has been pointed out repeatedly. The changes resulting from the use of this otherwise inert agent bear on the many sided question of intravenous therapy. The investigations of Hanzlik have shown the wide changes which occur in the blood and tissues. Confirmatory of the work of Hanzlik, it was found that the blood after injection of acacia is definitely altered. The danger of intravenous injection of acacia has been fully demonstrated. The warning against acacia may be extended to other blood substitutes and in fact to intravenous injections in general. (*Jour. A. M. A.*, February 20, 1926, p. 556).

INNER-CLEAN.—Inner-Clean (Inner-Clean Manufacturing Company, Los Angeles), is claimed to assist nature and "Progressively and Thoroughly Cleanses and Rejuvenates Relaxed, Flabby Intestines." Those who order Inner-Clean by mail are sent in addition to the preparation, a leaflet advertising the "Mucusless-Diet Healing System." The "system" apparently is a book which sells for \$1.50. Examination of Inner-Clean in the A. M. A. Chemical Laboratory showed the product to be essentially a coarse herb mixture (with a little sand) consisting mainly of senna leaves. (*Jour. A. M. A.*, February 20, 1926, p. 570).

ADMINISTRATION OF MERCURY AND ARSPHENAMINE.—The arsenphenamines are so reactive that they may not be combined in solutions with mercury salts for intravenous administration. Alternation of drugs, rather than simultaneous administration, is the present trend of anti-syphilitic medication. Mercury compounds administered intravenously should be given more frequently and over

a longer time than is permissible for the administration of arsenphenamine in sufficiently large doses. Furthermore, it is generally advisable not to give intravenous mercury medication, but to employ the forms such as the insoluble salts (or certain soluble salts) intramuscularly or to apply inunctions. (*Jour. A. M. A.*, February 20, 1926, p. 572).

PERTUSSIN.—The reason the medical profession should refuse to prescribe Pertussin is not primarily because the stuff is advertised to the public, but that it is a product of indefinite composition, marketed under a nondescriptive, therapeutically suggestive name, and is exploited with misleading claims. Pertussin is one of many proprietaries which has been popularized through the uncritical testimonials given the physician. (*Jour. A. M. A.*, February 20, 1926, p. 573).

GLUCOSE-DEXTROSE.—Legislation now under consideration in Congress aims to modify the interpretation of the federal Food and Drugs Act so that food products shall not be deemed adulterated or misbranded "because of having been preserved or sweetened with an article commonly known as corn sugar, also with an article known as fruit sugar or levulose." From the standpoint of nutrition and health, no reasonable objection can be offered to this proposal. It should be emphasized that in the new pharmacopeia "glucose" connotes the syrupy substance; the pure substance such as is used for treatment of hyperglycemia following a large dose of insulin is now described under the name dextrose (sometimes called d-glucose; formerly described also under the name anhydrous glucose). This may lead to confusion, as many physicians still speak of "glucose" injections, which under the new pharmacopeia are really "dextrose" injections. (*Jour. A. M. A.*, February 27, 1926, p. 628).

BURGESS-JOHNSON-WEBB SYNDICATE OF FRAUDS.—On February 11, 1926, the postmaster general issued a fraud order against a group of medical mail order swindles conducted by Ward H. Webb, W. W. Burgess, and Linn D. Johnson, who conducted the Gray Advertising Agency, Kansas City, Mo. As the Dale Laboratories they sold "Virex," a fraudulent cure for deafness, a fake cure for "stomach trouble"—"Dale's Wonderful Stomach Remedy"—and a kidney cure humbug, "Dale's Kidney Prescription." Under the trade name of King's Laboratories they sold a pyorrhea cure swindle. As the Hilton Laboratories they sold "Hilton's Vitamines to Make You Fat." As Warren Laboratories they sold "Clear-Plex" and other fake beauty preparations. As the Webb Chemical Co. they sold a fraudulent cure for asthma, the "Famous Webb Combination Prescription." As Walker Institute they sold "Walker's Prostate Specific," exploiting those with prostate trouble. As the Restorex Company they sold "Restorex Tablets," a weak-man remedy, while they sold a fake rheumatism cure—the "3-Way Combination Treatment" under the name of the 3-Way Chemical Company. These are but a few of the twenty-seven schemes operated through the mails by this group. The solicitor's memorandum shows that the preparations were made for them by George A. Breon & Co., of Kansas City. It was brought out that Burgess, Johnson and Webb had no medical training, and none of the "laboratories" were laboratories in fact. (*Jour. A. M. A.*, February 27, 1926, p. 641).

COD LIVER OIL EMULSIONS.—As a short period of aeration at a low temperature does not lead to destruction of either vitamin A or vitamin D (the antirachitic vitamin) it is safe to say that emulsified cod liver oil is equal in vitamin potency to the unemulsified.

RECRESAL.—It is claimed to be: "Highly efficient, corroborative for the sick, convalescents and those in need of recreation," and "Specially recommended in cases of weakness and exhaustion of a physical and psychic nature, in bodily and mental over-strain; indispensable for the preservation of the tone of muscles and nerves." Tests made in the A. M. A. Chemical Laboratory show that sodium acid phosphate is the essential constituent. Therefore, the claims made for the product are preposterous. (*Jour. A. M. A.*, February 27, 1926, p. 645).



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BOOK REVIEWS

THE ART OF MEDICAL TREATMENT. By Francis W. Palfrey, M. D., Visiting Physician, Boston City Hospital, Instructor in Medicine, Harvard University. Octavo of 463 Pages. W. B. Saunders Company, Philadelphia and London, 1925. Cloth, Price \$4.50.

This book is so different from other books on medical treatment that it deserves recognition by practitioners of medicine who desire to put into effect all of the facilities and niceties that go into the appropriate care of any case. The author starts out with the supposition that a diagnosis has been made and he then proceeds to offer a line of care to be followed, which includes not only the medication but a detailed description of methods of care, including diet, nursing, palliative and curative treatment and even advice to be followed by the relatives and friends of the patient. In fact, the book has been appropriately named "The Art of Medical Treatment" and it fulfills its purpose admirably.

A TEXTBOOK OF MEDICAL DIAGNOSIS. By James M. Anders, M. D., Professor of Medicine, Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania; and L. Napoleon Boston, M. D., Associate Professor of Medicine, Graduate School of Medicine, University of Pennsylvania. Third Edition, Entirely Reset. Octavo of 1422 Pages, 555 Illustrations, Some in Colors. W. B. Saunders Company, Philadelphia and London, 1925. Cloth, Price \$12.00.

This is a revision of a well known and deservedly popular book. The subject matter has been brought up to date by attention to all of the recent advances in the diagnosis of disease conditions. The purpose of the book, which has been well fulfilled, is to furnish ap-

proved methods of determining the clinical features of disease and emphasize the importance of correlating symptoms with the structural changes on which they are dependent and the organismal etiology. Special attention has been given to the question of the importance of certain clinical features, and the necessity of discriminating between those symptoms or manifestations which have little or no bearing upon the etiology, progress of treatment of the disease and those that are of the utmost significance in arriving at correct evaluation of the pathological conditions. Differential diagnosis has been given marked attention and will be found a very valuable feature of the book, as also the description of the newer devices and instruments of precision that have come into use within recent years and the newer methods of diagnosis brought about by an advance in the art of diagnosis. Nothing seems to have been left undone that would add to the value of the book. The illustrations are a wonderful help in elucidating the text. The book will prove of practical value to the practitioner who aims at thoroughness and accuracy in diagnosis.

MEDICAL FORMULARY. By E. Quin Thornton, M. D., Assistant Professor of Materia Medica in the Jefferson Medical College, Philadelphia. 12th Edition. 352 Pages. Pocket Size with Limp Binding. Lea and Febiger, 1925. Price \$2.50.

This new twelfth edition has been revised in accordance with the new edition of the U. S. Pharmacopoeia, and has been entirely rewritten. Critical study has been given to each formula in all its parts and there has been a constant endeavor to summarize the best therapeutics of the day. Diseases are arranged alphabetically and under each are given what are believed to be the most efficacious prescriptions for simple cases. A special feature is found in the indications and annotations as to the use of each formula.

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ORIGINAL ARTICLES

THE INVASION OF SYPHILIS*

FRANK W. GREGOR, M. D. AND FRANK M.
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INDIANAPOLIS

When one discusses syphilis, one trespasses on all the fields of medicine for no other disease is so protean in its manifestations. In the past quarter century greater progress has been made in the early recognition of syphilis than in the preceding centuries. The brilliant, original and epoch-making studies of Schaudinn, Wassermann and Ehrlich have done much to give us a better understanding of syphilis, but there is still much to learn. Of vast importance is some comprehension of the invasion of syphilis into the body.

For practical purposes the invasion of syphilis is dated from the time of exposure. Usually three weeks after contact the initial sore or chancre appears. Even in this early stage syphilis may take a variety of different lesions. The most common type of primary is the single, indurated, painless lesion usually about the size of a dime. It has been our experience in recent years to see many disseminated chancres; lesions in which there has been no induration. Harmless looking genital lesions, resembling an excoriation, are frequently found to be teeming with spirochetes. Though classical chancres are painless, extragenital chancres have been encountered which were quite painful. In many cases the initial sore is overlooked. This is particularly true in the tonsillar chancres and also in the intra-urethral cases.

Five weeks after exposure, an enlargement of the lymph nodes nearest the chancre is noted. The character of the gland is firm and painless with no tendency to suppuration. The inflammation is glandular rather than peri-glandular. The following week the lymph nodes on the opposite side take on the same general characteristics. Spirochetes can be isolated from the enlarged lymph glands. By this time the Wassermann is becoming positive. The eighth week finds the patient suffering with constitutional symptoms such as rise of temperature, malaise, angina, rheumatoid pains, neuralgia, headache and backache. The adenitis

becomes generalized and the glands in the epitrochlear and cervical regions become definitely palpable. At this time the blood and lymph streams are teeming with spirochetes. The vasa vasorum, which supply nourishment to the blood vessel walls, receive their proportion of the spirochetes; then, too, the capillary circulation bathing all of the structures with nutrient blood receives this contaminated blood in proportion to whether or not they are in dilatation or in repose. It is evident at this stage then that the syphilis is invading all the parts of the body after which it becomes a tissue disease.

The ninth week is the most spectacular one in the invasion of lues. It is at this time that the secondary or skin manifestations appear and the primary lesion usually disappears, leaving its tell-tale scar. The secondaries make their first appearance in the anterior portion of the chest below the nipple and on the abdomen. A marked feature of the secondary eruption is the symmetry of distribution; the points of predilection being the trunk, the lower part of the face, the nape of the neck, the flexor surfaces of the extremities and the palms and soles. There is a comparative freedom of eruption on the backs of the hands and the dorsum of the feet and extensor surfaces. The eruption is a dull red in color and is polymorphic in character. Itching is a rare, inconsequential symptom and is practically only encountered in the colored race.

By far the most common type of eruption is the macular one. It is often so inconspicuous as to be overlooked by the patient and is often discovered much to his surprise, when he is being examined by his physician. The macular eruption may be accentuated by a hot bath. The papular lesion is the second most common type of eruption and is frequently seen associated with the macular eruption. The follicular type, large and small, is occasionally seen. Rarely the rupial and pustular lesions are encountered. There is a marked tendency in the negro to circinate or ring shaped lesions while the condition is quite rare in the Caucasian.

There are rare cases in which the syphilitic infection seems to overwhelm the patient. These are so-called malignant cases. The immunity of the patient is slow to rise and the destructive

processes may be quite marked even in early cases. Before the discovery of arsenicals, some of these cases went on to a rapid fatal end.

At the time that the eruption is manifested on the skin, corresponding lesions are taking place in the mucous membranes. The appearance is necessarily modified by the different physical conditions of the parts. These lesions are called mucous patches and are found on the buccal surfaces, on the tongue, on the palate, at the angle of the mouth, on the vulva and anus. These lesions are red in color, variable in size and reach their highest development in the condylomata. Spirochetes are quite numerous in these lesions of the mucous membrane.

The succeeding weeks are marked by an intensification of the eruption on the skin and mucous membrane until the patient develops his natural resistance. It is during these weeks that we find iritis, the ulcerated throat, the moist papules around the anus and genitals. Syphilitic alopecia also begins at this time. There is a gradual thinning of the hair and a loss of lustre. Later on the characteristic moth-eaten alopecia involving the scalp and eyebrows is present. When the patient's immunity rises, the secondary symptoms gradually disappear except in such regions where irritation is persistent, for example, the mouth in a smoker.

When the eruption has been severe, changes in pigmentation may take place at the site of the skin lesions and a brown stain is left as a remainder of the eruption for many months. This condition is often quite marked in the negro. Another marked pigmentary change is the syphilitic leucoderma found so frequently on the side and posterior aspect of the neck. There is a loss of pigment of the site of previous syphilids. Syphilitic leucoderma is usually noticeable one to five years after infection.

As the syphilis becomes older the skin lesions become grouped. There are fewer lesions than in the early stages but the process is deeper, more destructive and more apt to scar. Lesions of this type are usually looked upon as late secondary manifestations. It is difficult to say just at what time the skin manifestations become tertiary but it is generally after the first year or at some time after the patient's immunity has been stimulated to its highest point. Some of the most confusing cases seen are those that have had a little treatment. The lesions in this instance may assume a number of shapes and have a tendency to the extensor surfaces, but the general picture is one of delayed secondaries.

Another point of particular interest and significance, is the persistence of the generalized adenitis. It has been our experience to find that the generalized adenitis is not palpable after five years, even though the patient has had no treatment. In cases of *tabes dorsalis*, *paresis*,

aneurysm and other late manifestations of syphilis, the patient would not show any generalized adenitis.

Of vital importance to the syphilologist is the conception that syphilis is a disease of all the tissues and that when the disease becomes generalized in the early months the spirochetes may localize in any part of the body be it eye, brain, skin or bone. The condition may be dormant for an indefinite time only to flare up into a marked destructive process at any time when the body is being subjected to infections and the stresses of life.

In conclusion we wish to emphasize (1) the value of the dark field examination in genital sores so that the treatment may be undertaken early; (2) the Wassermann usually becomes positive after the sixth week and a blood taken before that time is not of great value except to rule out previous infection; (3) the important role played by irritations in causing persistence of symptoms; (4) the paramount importance of making a definite diagnosis before any treatment is instituted; (5) the knowledge that syphilis is protean in its manifestations, that it imitates many other conditions; and finally that this outline is a cross section of our experiences in a great many clinic and private cases and affords the premise upon which these observations are based.

RENAL DECAPSULATION IN BICHLORIDE OF MERCURY POISONING*

REPORT OF CASE

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In the treatment of cases of bichloride of mercury poisoning that seek aid after an interim sufficient to allow complete absorption, the results obtained by the use of various methods as advocated by Fischer, Carter, Lambert and Patterson, and others, were often discouraging and unsatisfactory. Those who have observed a group of these cases are familiar with the inadequacy of the orthodox medical treatment. In view of this fact, some few cases have been treated by supplementing surgery with medicine. Renal decapsulation is the operative procedure referred to here. Several case reports show that bilateral decapsulation has been instituted with varying results, but nowhere in the limited available literature have been found the reports of the results of unilateral decapsulation, or its effect on the tubular structure of the kidney.

It is the consensus of opinion that decapsulation may be beneficial to the acutely congested kidney. With a hope that the tension would be relieved and a restoration of function of the tubules incapacitated by pressure, this operation was done with some very interesting and enlightening results.

The case reported here is that of a poorly

*From the Department of Medicine, Allison Hospital.

nourished white woman, age twenty-five years, who was admitted to the hospital the evening of December 4th, with a history of having inserted into the vagina for contraceptive purpose, a 7.3 gr. bichloride mercury tablet on the evening of December 2nd. Shortly after this she experienced smarting and burning in the vagina and made an unsuccessful attempt to remove the tablet because of the severe spasms and pain. About midnight she began to urinate frequently and continued doing so until the next morning, when complete suppression of urine set in. December 3rd and 4th intermittent vomiting, pytalism, frequent bowel movements, and some bleeding from the vagina occurred.

Upon examination two days after the occurrence of the accident, the patient was apprehensive but apparently not suffering from pain. The lips were cyanosed and dry. There was marked stomatitis, some areas of necrosis of the tongue and gums, teeth blackened, and a distinct blue line at the gum margin. The pharyngeal mucosa was congested, the breath fetid. The pupils and fundi were normal. Temperature 100° F., pulse 100. Blood pressure 115/50. The heart, lungs, abdomen, and extremities were normal. The vulva was swollen and red, and the mucosa of the vagina showed an area of necrosis.

The following treatment was instituted:

(1) Gastric lavage with 3 per cent sodium bicarbonate twice daily.

(2) Vaginal douch every six hours, with 2 per cent sodium bicarbonate.

(3) Rectal drip of 1 per cent potassium acetate solution every three hours with colonic irrigations twice daily.

(4) 200 cc. of 5 per cent glucose intravenously twice daily.

(5) Irrigation of the bladder.

(6) Daily sweat baths with hot packs and deep therapy lamp.

(7) Eight ounces of the following mixture by mouth every two hours:

Potassium bitartrate, dr. 1.

Glucose, dr. 1.

Lactose, oz. $\frac{1}{2}$.

Lemon juice, oz. 1.

Water, q.s. 1 pt.

The condition of the patient remained unchanged until December 6th, when equal, bilateral dilatation of the pupils was noted, a systolic blow developed over the mitral area. She was now unable to retain fluid by rectum, but received 800 cc. by mouth, which she retained, and 700 cc. of intravenous glucose solution (5 per cent). Her temperature was normal, or sub-normal, pulse rate 90, blood pressure 120/50. The suppression persisted. On the evening of December 6th, the patient was taken to the operating room where Dr. Scott R. Edwards cystoscoped her, and after this decapsulated the right kidney.

Inspection of the bladder showed six areas about 5 mm. in diameter, markedly injected, numerous punctate hemorrhagic areas, and few slight areas of necrosis of the mucosa. A No. 6 F. catheter passed 4 cm. into the left ureter, and then met obstruction. A No. 5 F. catheter could be passed no farther on the left side, but was inserted 11 cm. into the right ureter. The latter was left in place. The injected 5 cc. of sterile water returned slightly cloudy, which, when agitated, showed small particles of epithelium, shreds and albuminous material.

The decapsulation was done through a right transperitoneal incision. The kidney was deep red in color, enlarged, swollen, and unusually congested. When the capsule was split the kidney "welled" out of its capsule. There was much oozing of exceedingly dark blood. This oozing continued about ten minutes. The wound was closed with rubber tube drainage. Patient's condition after the operation was good.

During the next two days, at intervals of three hours, 5 cc. of sterile water were injected into the catheter in the right ureter, but all was returned clear. The catheter was withdrawn on the afternoon of December 8th. That night, 134 hours after the onset of the suppression, she voided for the first time 120 cc. of urine, characterized by coarse granular and hyaline casts, albumin, red cells, and specific gravity 1.001. December 9th, the patient became rather stuporous, and slept most of the time. There was no edema, heart rate was 110, irregular and feeble. She appeared weakened. A blood transfusion was done by the citrate method. This seemed to help her weakened condition a great deal. December 12th she was a little brighter, and began to eat. Temperature, pulse, respiration, were 99.4 F., 100 and 20, respectively. She continued to receive about 1,000 cc. of fluid daily, and voided an average of 500 cc. Her urine showed an increase in specific gravity 1.017.

The results obtained by bilateral ureteral catheterization on December 17th are of special interest. A differential phenolsulphonephthalein for the first two hours showed only a trace of the dye from the right kidney, and about 2 per cent from the left kidney. The most striking fact was the difference in percentage of urea excreted by each kidney. From the right kidney, the one decapsulated, the urea content was 5.4 per cent. From the left kidney, only .9 per cent; the amount of urine from the left kidney was more than twice the amount from the right kidney.

On December 21st, after a severe hemorrhage from an eroded vaginal vessel, her temperature and pulse started to rise. She was quite stuporous during the night and next morning. That afternoon her pulse became very feeble, and she died the night of December 22nd, 1925, on the twentieth day of her illness.

Permission was granted to resect the kidneys, and examination of the sections from the kidneys showed the following microscopic pathology: The tissues of both are intensely infiltrated with small round cells and leukocytes. None of the cells took the stain very evenly, and a greater majority of the cellular limits of the tubules show a marked cloudy swelling, and a very unevenly stained nuclei. The majority of the tubules have their lumen filled with a homogenous, very poorly stained debris, apparently fragmentic cells and nuclei. Many of them are hemorrhagic. There seem to be a greater number of open tubules in the right kidney. The glomeruli of both kidneys are in a better state of preservation than the tubules. Their cells took the stain much better, some appearing almost normal, except for a round cell infiltration.

The results obtained in the case above, as shown by the increased output of urea of the decapsulated kidney over that of the other kidney, were very striking.

The case was deemed worthy of being reported because one kidney was left untouched, and this served as a control on its fellow.

Because of the amount of mercury absorbed in this particular case, it is probable that death would have resulted regardless of the therapy instituted, but it may be plausibly assumed that death would have been delayed had both kidneys been decapsulated. These observations lead us to believe that a definite improvement of function of the tubules of the decapsulated kidney in the above case was so definite and clean cut that it can leave but little doubt that this operation has a therapeutic value in the treatment of acute nephritis of bichloride poisoning, and it is probable that in cases where the dose is small, it may be possible to save some lives by this procedure.

CESAREAN SECTION UNDER LOCAL ANAESTHESIA*

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In that the mortality among complicated and neglected obstetrical patients is still deplorably high, those doing obstetric surgery are not infrequently confronted by cases requiring, as a last resort, cesarean section, even though the condition of the patient be one of extremis. So marked is the extremis sometimes that the slightest additional shock or physical injury to the patient would seem sufficient to throw the balance unfavorably.

The operator, owing to the double responsibility involved, not too seldom approaches these patients with a fusion of interest and fear that he rarely, if ever, experiences in any other field of surgery. 'Tis then that he welcomes any form of aid that will assist in carrying his patient

safely through. He realizes that the immediate, most important, and probably the most difficult problem before him is the choice of anaesthetic to be employed. The selection in some instances is not easily made and if an anaesthetic is properly chosen for a given case it is that one, or combination of anaesthetics, which not only produces no poisonous or irritant effect upon the vital processes of a very sick patient, but also causes the least possible physical distress and prevents to a high degree mental and physical shock.

Among the graver complications of pregnancy where cesarean section may be indicated and careful judgment required in the choice of the anaesthetic, may be mentioned the following: cardiac disease,¹ especially where there has been a history of one or more breaks in compensation, nephritis, cardio-renal disease, eclamptic primiparae with rigid crevices, diabetes, pulmonary tuberculosis, bronchial asthma, marked anemia, acute infections such as bronchitis, pneumonia, typhoid, etc., abruptio placentae, placenta previa accompanied by profuse hemorrhage, ruptured uterus, and exophthalmic goitre.

About two and one-half months ago I had the occasion of meeting one of these graver obstetrical cases, indicating cesarean, which was complicated to a degree that somewhat more than usual judgment was required in determining the anaesthetic, and which in the end lead to so satisfactory an experience that I take this opportunity in relating it.

On August 14 of this year an eight and one-half months impregnated primiparous patient nineteen years of age was brought on a stretcher from a neighboring institution to the Florence Crittenton Home. Her chief complaint was general weakness, vertigo, and nausea, these symptoms having existed ten to twelve weeks previously and having gradually taken on a progressive severity. Her family history was irrelevant and the past history, also, except for the illegitimacy of her pregnancy and that early in her gestation she had been given some brown pills to terminate the pregnancy. She was uninformed of what the pills contained. Of further interest was later information that the inmates of the institution from which she came have access to bichloride of mercury used in douching solutions.

General examination showed a normally developed, young, white woman, carrying an estimated eight and one-half months pregnancy, and presenting a slight general edema, a markedly anemic complexion, and a listless attitude. The baby was in the O.L.A. position and had a normal heart rate. Physical and laboratory examination revealed no particular findings excepting the following: hemoglobin 30 per cent; red count 1,300,000; white count 11,000; systolic pressure 130, diastolic 90; three plus albumen, occasional granular cast, and a few pus cells; and a P S P

*Read before the Marion County Medical Society, October, 1925.

kidney function test of 25 per cent total at the end of two hours. Eye-grounds examination was not made at this time.

Patient was put under observation and routine conservative treatment, including iron hypodermatically. Within three days she developed symptoms of vertex headache, blurred vision (marked at times), severe hepatic pain, dyspnea, stupor, and great increase in general edema, with corresponding suppression of urine, fourteen ounces the least passed in twenty-four hours. Nausea was the only symptom to be alleviated, probably through alkalinization. The blood-pressure had changed to 140 over 80.

As a result of this culmination of symptoms, a number of consultations were held, including those of two obstetricians, an internist, and a surgeon, the latter having been summoned as to the advisability of blood transfusion.

The concerted opinion was that the patient was in a most serious condition and that she would not live longer than a few days or ten days at the most. The baby's condition was apparently unchanged. The case thus presented itself as one of those in which the life of the fetus is given a higher par value than that of the mother, although in this instance, owing to the social status of the case, the advisability of endeavoring to save the baby was lightly questioned by two of the consultants. No doubt in time our social agencies by pressure of economic influences will solve such instances for us. For the present, there seems to be an opinion among some medical men that such deductions should be made without rather than within the profession.

Since the baby was given preference, it was naturally and unanimously agreed that the choice of delivery would be by section, since induction of labor and delivery from below would materially affect its chances, especially owing to its prematurity and toxic condition. This consideration equally applied to the mother, because it was the opinion of the consultants that she would succumb to manual induction, let alone pelvic delivery.

Owing to the lack of facilities for cesarean at the Crittenton Home, the patient was transferred to the Long Hospital on the afternoon of the 19th of August. She arrived none the worse for the trip, but her general condition I later found further expressed in the notes of the interne which stated that "the patient was in such precarious condition that only a limited general examination was made." One and one-half hours after arriving at the hospital she was taken to surgery. Ten minutes before she was placed on the table she was given one-sixth gr. morphia and one-two-hundredths grs. scopolamine hypodermatically, the abdominal field having been prepared and the bladder emptied as per routine.

As before stated the chief problem was the selection of the anaesthetic. Owing to the severe

renal condition, ether was contraindicated. Likewise chloroform because of the hepatic involvement and beginning myocardial weakness. Nitrous oxide gas, the other usual anaesthetic, was not appropriate because of the marked anemia, besides 'tis none too safe in presence of cardiac embarrassment. I am informed that ethelene gas would be preferable to nitrous oxide in considering the anemia.

Having made this deduction, the choice of local anaesthesia was readily made. It was administered by the block method, four intradermal wheals being made on each side along a line three fingers breadth from the mid-line, or what ordinarily would be the outer margin of the rectus. The wheals were arranged equi-distant, the top-most about 8 cm. above the level of the umbilicus and the lowest about 4 cm. above the level of the symphysis. The needle was then passed through each of the wheals into the subcutaneous and abdominal wall structures by advancing it parallel to the skin surface, the solution being distributed both as the needle was advanced and withdrawn. The solution used was a .5 per cent novocain containing three minims adrenalin hydrochloride per ounce. In all a little over 100 cc. of the solution was used.

After waiting three to five minutes (my limited experience with local anaesthesia has not found it necessary to wait as much as ten to fifteen minutes as advocated by some) a low 12 to 14 cm. mid-line abdominal incision entirely below the umbilicus was made. The incision was made with no difficulty whatever, the muscles were surprisingly well relaxed. A 10 cm. uterine incision was next made longitudinally through the anterior surface of the fundus. The uterus was most striking in color in that it had a very light appearance not unlike very light pinkish coral. The hemorrhage from both abdominal and uterine incisions was quite scant and almost imperceptible because of the low hemoglobin. As the baby was extracted, and without difficulty, the assistant pressed laterally on the flanks toward the mid-line in order to prevent intraperitoneal spill of amniotic fluid and blood, and also to keep the intestines from appearing in the field. One cc. of pituitrin was immediately given hypodermatically into the uterine muscle. The placenta and membranes were easily removed. The uterine incision was then held by a vulsellum at each end, and closed by two rows of interrupted and one row of continuous suture. Omentum was then carefully placed over the front of the uterus, and the abdominal wall closed with usual three suture line technique. The entire operation was completed in a little less than one-half hour. As the abdominal incision was being closed, the internes started a 500 cc. whole blood transfusion, according to the Kimpton-Brown method, again using local anaesthesia.

At no time during the operation was the usual speed or technique of operating interfered with by discomfort on the part of the patient. She never made the least moan or flinched during the entire procedure, and by the time the uterine incision was being closed she had become entirely comatose and was completely relaxed. Her pulse at the beginning of the operation was 112, before the transfusion it had dropped below 100, and on leaving the operating room, at which time she had regained rational conversation, the pulse was 84, and of a much stronger volume. There was never any evidence of shock either during the operation or during the post-operative period. There was not even a suggestion of nausea and vomiting, or gastric dilatation or ileus following the operation, and the patient seemed surprisingly comfortable for the first forty-eight hours and within that time the kidneys began secreting freely and the general edema entirely disappeared. However, her vital organs had been "bit" too hard, as was later verified by autopsy, and she began a sustained temperature and pulse both of which gradually increased, except temporarily following two subsequent transfusions, and she died twenty-one days following operation.

The baby required a few minutes of resuscitation by the interne who employed the mouth-to-mouth method and free oxygen. It weighed five pounds eleven ounces, and showed the usual toxic development characteristic of these cases. It was a personal revelation that life could have been sustained for the infant, taking into account the marked maternal anemia, especially evidenced by the bled-out fibroid appearance of the uterus, together with the severe general toxemia. The baby, because of its subnormal temperature, was placed in the incubator the first week and was fed on a formula from the beginning. Its progress was very satisfactory, and by the time it left the hospital six and one-half weeks later, it weighed eight pounds thirteen ounces—a gain of three pounds two ounces, and seemed normal in every way.

In short, I have never performed a surgical procedure that was more satisfactory than the one related. I trust no interpretation is made that I am suggesting priority in performing this operation or any step in the technique under the anaesthetic described. Casual literature itself reveals more than a hundred cases having been performed in this country, one author having performed twenty-three to date.² In our own city without inquiry I know of at least three performed prior and two since the one here recorded.

Now as to some special points relative to the conduct of the operation:

1. *Preliminary narcosis.* No lesser authorities than DeLee of Northwestern and Newell of Harvard disagree as to the use of preliminary narcotics in these cases of cesarean

employing local anaesthesia. DeLee³ does not use morphine and scopolamine till after the baby is born, for fear of narcotization, but admits, if these drugs could be used with safety to the child the method would be complete and ideal. On the other hand, Newell⁴ advises morphia gr. one-sixth and scopolamine grs. one-two-hundreds hypodermatically one and one-half to two hours before operation, and the scopolamine to be repeated every forty-five minutes, rarely more than two additional doses being necessary. Irving makes the note that full term babies delivered under narcosis advised by Newell cry promptly and usually more vigorously than when delivered under ether, but that prematures require considerable resuscitation. In performing the above case it was noted that the narcotic was given only a few minutes before the operation, thus endeavoring to compromise these two views. Here Dr. Gudell has again recently come to our assistance by informing us that we no longer need greatly fear drug asphyxia of the baby, so long as we have a supply of carbon-dioxide at hand.

2. *Administration of the Anaesthetic.* In performing the cesarean, as much as ten ounces of .5 per cent novocain may be used, but rarely more than three to five ounces is required. 'Tis helpful to add three minims of adrenalin hydrochloride to each ounce.

Infiltration by the block method I believe more practical than infiltration along the line of incision, because it avoids the question of local injury to the tissues in the healing process, and it affords a better relaxation of the muscles.

Owing to the thinness of the abdominal wall in these cases, it is not practical to differentiate between the layers of the abdominal wall in passing the needle perpendicularly as in ordinary abdominal field block. Owing to the resistance of the uterus there is no fear of penetrating it. *Anaesthetization of the uterus or its peritoneal coat is unnecessary* as they both are practically insensitive. Likewise, if it is desired to sterilize the patient, the excision of the tubes can be readily done without further infiltration. However, hysterectomy is practically impossible without infiltration of the broad ligaments.

This local administration is preferable to the paravertebral anaesthesia even though it be combined with morphine and scopolamine, in that it is less cumbersome and technical, and requires no special training. Spinal anaesthesia presents unpleasant after effects, carries some danger with it, and affords the disadvantage of having the patient conscious.

3. *Site of Abdominal Incision.* In order to eliminate pain as much as possible, this should be in the midline and completely below the umbilicus so as to dispense with traction on the uterus in closing it. (Pain is further reduced by minimal

traction upon parietal peritoneum, and gentle breaking up of adhesions).

The low incision also permits to a much lesser degree the stomach and bowels entering the field of operation and thus forestalls gastric dilatation and intestinal ileus, either of which is not an infrequent cause of death following cesarean, especially in the presence of an embarrassed heart.¹

4. *Omit gauze packs*—(either wet or dry). In that they are liable to create considerable peritoneal irritation, besides they afford another source for pain upon their removal. In reality they are rarely correctly applied, and in separating the uterus and abdominal wall permit the blood and amniotic fluid to run into the abdominal cavity. This can be better accomplished by having an assistant give firm pressure on the patient's flanks till the contents of the uterus is emptied.

I have herewith discussed a plan of handling cesarean cases among the grave and more serious obstetrical cases that according to those of experience to date has the following advantages: Freedom from danger for both mother and child. No post-operative nausea and vomiting. Shock is absolutely prevented. Acidosis, fatty degeneration, post-operative pneumonia and paralytic ileus are not produced, and thus incidental infections, if any, are better withstood. No danger of cerebral hemorrhage, and in general a more comfortable patient.⁵

With all these advantages and with these serious obstetrical cases indicating cesarean occurring frequently about us, I am convinced that *local anaesthesia is not used often enough*, and if its use is applied to the series of complications mentioned early in this paper there would be a marked improvement in the mortality among this group, and I am also of the opinion the surgeon would be made conscious of a wonderful personal satisfaction as a result of its employment. Just remember that it is applicable just where we need it most, that is where we wish to avoid the pain and physical exertion of labor, the possible shock of an operative pelvic delivery, and the danger of a general anaesthetic.

This most valuable application of local anaesthesia should alone make everlasting the words of William Mayo "Regional anaesthesia has come to stay."

1. Irving—*Boston Med. and Surg. Jour.*, June 3, 1920.
2. DeLee—*Principles and Practice of Obst.* 4th Ed. p. 1049.
3. DeLee—*Practical Medicine Series*, p. 278, 1920.
4. Newell—*Gynecological and Obstetrical Monographs*, p. 104, 1921.
5. Mowery—*Jour. Kansas State Med. Soc.*, February, 1921.

ACTINOMYCOSIS*

REPORT OF A CASE INVOLVING THE DUODENUM AND BILIARY TRACTS

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The case to be described is of sufficient clinical interest to justify its publication not only because

it is rarely met with in the literature, but also from the standpoint of its long unrecognized course, its final diagnosis and favorable response to treatment.

Actinomycosis of the small intestine and gall-bladder receives but scant mention in our textbooks, and most of the cases described in the current literature come from surgical clinics or from autopsies. The cases that are operated on are so far advanced that hardly any of them survive, and because of the added difficulty in confusing the morbid process with carcinoma, many of the advanced cases are considered inoperable. Many of the lesions of actinomycosis look and feel and grow like carcinoma, and only a microscopic examination can distinguish between the two pathologic entities.

Mrs. E. W., a white American woman, aged forty, and of good family history, dates her present complaint since her early girlhood. She had always been a frail, slim girl and suffered from periodic attacks of nausea, vomiting and headaches from her fifteenth or sixteenth year, onward. To these digestive disturbances later supervened severe attacks of pain in her right abdomen, chiefly confined to the upper quadrant. The paroxysms of pain were of variable duration and intensity and came on between periods of comfort. An attack came on as a rule immediately following a meal, regardless of the kind of food, in this order: Nausea, vomiting, headache, and annoying pain in the right side, which persisted for several days or weeks.

She was in one of these attacks when an appendectomy was performed, but claims that the operation did no benefit to her, as the attacks continued in their usual frequency and severity. In 1919 she consented to an operation for enteroptosis, which also left her unimproved.

Four years ago her trouble became aggravated with attacks of diarrhoea. The stools were liquid, foul smelling, and contained numerous shreds of mucus and undigested remnants of food. The number of stools averaged from ten to fifteen a day.

In 1920 she made a round of several dispensaries of the New England States, and subjected to X-ray examinations of her viscera and kidneys, but her trouble was not diagnosed.

She became now bedridden for the greater part of the time, losing strength daily, weighing 104 pounds, and unable to retain any solid food without vomiting and diarrhoea. Her pains became localized to the region of the gall-bladder and from there radiated to the right shoulder. The longest of these attacks lasted twelve hours.

In 1924 she underwent her third operation for malposition of her uterus which, too, proved of no benefit.

The patient came under my care September

*Presented before the staff of Mercy Hospital, Gary, Indiana.

25, 1924, complaining of nausea soon after eating and pains of varying intensity in the epigastric region, radiating to back and right shoulder. Emesis relieved her from the epigastric pains. She also suffered from pains in the groin and both thighs, which made walking painful to her. The diarrhoea still persisted, although occasionally she was constipated. For the last two or three weeks she is subject to neuralgic pains in the left half of her face. Menstruation ceased since her last operation. She was pregnant twice and miscarried both at three and four months, respectively.

The patient is a poorly nourished slender woman, weighing 105 pounds, and five feet five inches in height. The face presents a discrete maculopapular eruption of a pale rose color. She has several ulcerated teeth, and the pharynx is hyperemic. Superficial adenopathy absent. The respiratory excursion of the chest is full and equal on both sides and the heart sounds are of a good quality. The epigastrium is full, the abdomen looks distended, but palpation reveals that it is flabby, devoid of muscular tone and deep palpation of abdominal contents encounters no resistance, especially facilitated because of the complete absence of a panniculus adiposus. Fist sized masses of a semi-elastic consistency and tender to pressure are encountered just below the flabby abdominal wall, below and to the right of the umbilicus, and about a hand's breadth above the pubis. In all, three well-defined masses are distinguishable. No fluid can be made out in them. The gall bladder region which is moderately full allows of deep palpation, and tenderness, though not marked, is elicited on pressure. Tenderness is marked just external to gall-bladder and it is the only place where marked resistance is encountered.

The liver is enlarged three finger breadths below costal margin and appears smooth over palpable surface.

The operative scars from the three previous laparotomies mentioned above are well healed. Pelvic examinations reveal nothing of importance except marked borborygmi. Urine colorless, a few epithelial cells, negative as to albumin, sugar and casts.

Temperature normal, blood: Hb. 76 (Sahli) R.B.C. 3, 412,000; W.B.C. 5,700; polymorphonuclear neutrophils 52 p. c.; lymphocytes 47, large mononuclears 1. Color index 1.2 p. c.; blood Wassermann negative.

X-ray examination showed low position of the pylorus and its mobility was somewhat restricted. There was also a flattening of the duodenal cap.

Aspiration of the duodenum by the Lyon technic yielded a turbid greenish colored purulent fluid, the turbidity of which gradually disappeared, yielding eventually a clear bile. Inspecting the latter by transmitted light there were

noticeable numerous dirty white granules and specks of black particles suspended in the fluid. On microscopic examination these bodies proved to be composed of a whorl of mycelia closely packed and taking the Gram stain. The mycelia were coarse, septate and occasionally branching. On the periphery of a crushed granule there was an eosin staining portion which was rather too massive to deserve the designation of clubbing. The darker stained portions were spores of the same organism, being confined within the mycelial threads. Cultures could not be obtained.

I have obtained these bodies in the bile stained duodenal contents at bi-weekly intervals for several weeks. Allowing the fluid to stand within a test tube the granules would sink to the bottom within a short time. From their morphology and staining reaction I believe I am justified to class them as belonging to the streptothrix family, and that this streptothrix was the etiologic factor in the disease of this woman will be shown by the subsequent history.

On the basis of these findings I made the diagnosis of a chronic granuloma involving the duodenum, the gall-bladder and the biliary tracts of the liver of actinomycotic origin. The treatment consisted of duodenal lavage twice a week, following each lavage by the introduction of 30 cc. of a 2 per cent solution of mercurio-chrome through the duodenal tube as a topical application, and allowed to escape after five minutes of retention. Before withdrawal of the tube physiologic salt solution was passed through it to prevent contact of the gastric mucosa with the dye as this causes violent retching if it reaches the stomach. The patient was then given one gram of sodium iodide intravenously every second day, and the same drug, *per os*, in gradually increasing doses, until 150 grains of the iodide was taken per day. This was kept up for ten months. After this time the patient received but one intravenous injection of the iodide per week. The favorable results of the treatment were manifest by a gradual improvement, shown by gaining weight, by better appetite, nausea and vomiting ceased as well as the diarrhoea. The patient's weight at this time (15 months after beginning of treatment) is 130 pounds, her maximum weight never exceeding before placing herself under my care, from 105 to 108 pounds. She is enjoying an active life, doing all her housework, and acts and feels like a well person. Repeated search of the duodenal contents refused to yield actinomycotic granules. Her menstrual function returned on October 29, 1925, which continues regularly after a period of complete amenorrhoea since April, 1924. It is to be noted that her menstrual functions were always irregular before this time, occurring about every four months.

The persistent findings of actinomycotic

granules in the intestinal tract with the history of diarrhoea, nausea and vomiting, and emaciation for which she sought relief in three operations, but did not get it, point clearly to the diagnosis as made. This is corroborated by the results of the treatment. Streptothrices may be occasionally found in a healthy gastro-intestinal tract but not persistently in the same individual, and not in large quantities. If found persistently with symptoms of malnutrition, nausea and vomiting, and especially diarrhoea, a diagnosis of actinomycosis of duodenum and gall-bladder can reasonably be made. The iodides are to be given intravenously because the action of the drug becomes more certain to reach all infected foci. In addition the iodides should be given by mouth in increasing doses, a procedure which insures longer retention of the drug within the circulation.

While actinomycosis is considered a rare disease in this country it would be found to occur more frequently if a search be made for it. The original focus of infection most probably takes place by way of carious teeth. The pus from such teeth should be subjected to microscopic examination in order to ascertain the presence or absence of streptothrices. If present, iodides should be given as a prophylactic measure in addition to the dental care of the tooth. Biopsy of actinomycotic lesions is superfluous if the organisms are demonstrable in aspirated fluid contents.

THE RADIOGRAPHIC EXAMINATION AS A FACTOR IN THE DIAGNOSIS OF CHRONIC RESPIRATORY IN- FECTIONS

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The advent of the stereoscopic x-ray examination of the chest made possible the indirect visualization of the thoracic viscera in three dimensions without superimposing the shadows of both sides of the chest wall. The air filled lungs give a negative or dark shadow and appear as a hollow viscus inside the bony framework. The heart and blood vessels filled with blood, the bony framework, muscles, etc., make a positive or lighter shadow and each is seen in its exact shape and anatomical relationship to other organs. Wessler and Jaches in their "Clinical Roentgenology of Diseases of the Chest" state: "On no branch of medicine has the clinical application of the Roentgen-ray yielded more gratifying results than in diseases of the chest. It has effected a revolution in thoracic 'diagnosis' and when properly employed has eliminated much of the uncertainty inherent in the older methods of examination."

Webster's dictionary defines the word "diagnosis" as the art or act of recognizing the presence of disease by the signs or symptoms and deciding

as to its "true" character; and defines the word "truth" as conformity to fact or reality, an exactness; a real state of being. A diagnosis is only an opinion until all the factors forming the basis of the opinion can be proven to be correct. This is very rarely possible in medicine. Hence, "truth," or a "correct diagnosis" as applied to medicine is an ideal challenging all the means at our command.

The Cincinnati Branch Hospital is an ideal place for the Roentgenological study of chest conditions. The institution has a capacity of 300 patients and the records show that more than 50 per cent of those dying come to the autopsy table. Before the autopsy is started the body is sent to the x-ray department and a postmortem set of stereoscopic chest films are made. The reading of this set of films is carefully made and recorded. All the antimortem films, many taken as long as ten years prior to the patient's death, are carefully studied and the findings compared with the post-mortem radiographic findings.

In removing the lungs from the body, much care is exercised to prevent cutting or tearing the visceral pleura and the trachea is severed just below the cricoid cartilage. In some cases where there is extensive pleural involvement either at the apices or base, the pleura may be torn. If the lungs come out with the pleura intact, they are inflated with an ordinary bicycle pump by fastening a cannulae in the upper end of the trachea and attaching the tubing of the pump. The inflated lungs are hung up before the plate changer and stereoscopic films made. These films are studied and findings recorded. The dissection of the lungs to identify the pathology causing the abnormal shadows in the films can be done immediately on the fresh specimen but it is more satisfactory to harden the lungs in a 10 per cent formalin solution and make the dissection later.

The favorite method of searching for lung pathology as practiced by most pathologists, that of making cross sections of the various lobes at different angles is not satisfactory in searching for minute pathology as localized on the films. A dissection by following out the bronchi with a groove director and sharp knife is the preferable method.

The upper lobes, the middle lobe and the upper third of the lower lobes present a uniform distribution of the bronchial subdivisions. There is a bronchus or bronchiole in each trunk or linear marking shown on the x-ray film, consequently the localization *by lobes* of shadows indicating pathological tissue change can be correctly made by following out the trunks from the hilum. The interlobar pleura can not be detected on the x-ray film unless it is thickened by disease. For practical purposes the fifth rib is a good landmark as the dividing line of the upper and lower lobes, and the third rib anteriorly as the dividing

line between the upper and middle lobes on the right side.

Most textbooks in describing the respiratory tract include everything from the larynx to the air cell. Inhaled air enters the body through the nose or mouth and leaves through the same channels, therefore for the purpose of this paper, all organs coming directly or indirectly in contact with the air current will be included in the discussion. These include the nasal air passages, nasal accessory sinuses, pharynx, mouth, teeth, tonsils, larynx, trachea, bronchi, lungs and pleura. These organs are very vascular and contain many secreting glands. They are covered with an epithelial lining of ciliated columnar type, except in the mouth, portions of the pharynx, the alveoli and the pleura, which are covered with a cuboidal non-ciliated epithelium. Immediately beneath the epithelial lining are layers of connective tissue in which are the capillaries, both vascular and lymphatic, nerve endings and the secretory glands.

The bronchial tree is made up of the trachea, the right and left bronchus and their many subdivisions, the last of which is the respiratory bronchiole. Each respiratory bronchiole subdivides into the alveolar ducts which are the last subdivision of the bronchial tree and it is from these that the parenchyma of the lung has its origin.

The anatomical arrangement of the alveolar duct, with its atria, alveolar sacs and air cells, together with the blood vessels, lymphatics and nerves associated with them, form the unit known as the "Primary Lobule." It is cone-shaped with the base toward the periphery of the lung. The "Secondary Lobule" containing any number of "Primary Lobules" is marked out by connective tissue septa from the pleura and is seen on cross-section of the lung. These also take the cone shape with the base toward the periphery.

The lymphatics of the respiratory system as with the digestive system are unusually well developed and are one of the chief methods of protection against, as well as portals of entry for pathogenic organisms.

At the upper part of the superior mediastinum the thoracic duct terminates in the angle of the junction of the left subclavian vein with the left internal jugular vein. It receives tributaries from the posterior intercostal nodes of the upper six left spaces, the posterior mediastinal nodes and is joined in the neck by the left jugular and left subclavian trunks. The left bronchomediastinal trunk usually opens independently into the left subclavian vein.

The right lymphatic duct terminates in the right subclavian vein at its angle of junction with the right internal jugular vein. It receives lymph from the right side of the head and neck through the right jugular trunk, from the right

side of the thorax, the right lung, heart and liver through the right bronchomediastinal trunk.

The lymph nodes of the thorax are divided into two groups—the visceral and parietal. The parietal lymph nodes include the internal mammary, intercostal and diaphragmatic nodes. The visceral lymph nodes consist of three groups, viz., anterior mediastinal, posterior mediastinal, and the tracheobronchial. The efferent branches of all these nodes terminate either in the thoracic duct or right lymphatic duct.

Dr. William Snow Miller, of the University of Wisconsin, is authority for the statement that the lymph flow from the trachea is never into the lung but into the peritracheal lymph glands. There are lymphatics which accompany the pulmonary artery and veins to their finest capillary subdivisions and anastomose with the lymphatic system in the bronchi and these unite with that which is present in the pleura. When valves have been found, they always pointed toward the hilum in the bronchial lymphatics and toward the pleura in the pleural lymphatics.

Miller, in his experiments on the direction of the lymph flow in the lung, found that the presence of valves prevented the lymph in the pleura from flowing into the lymph channel of the lungs and that the flow of lymph was from the periphery toward the hilum rather than from the hilum outward. If this is true, it is apparent that organisms which get into the lymph stream at the hilum are not carried out into the lung structure. This is a very strong argument against the spread of tuberculosis from within outward and would indicate that hilum tuberculosis follows a parenchymal infection unless it is primary at the hilum. In this case, the chances for peripheral extension from the hilum are not great. Our knowledge of the functions of the lymphatic vessels and tissue is incomplete. One of the chief functions of lymph is to act as a carrying agent. Foreign bodies such as coal pigment, bacteria, phagocytes laden with bacteria and cell detritus, leucocytes and red cells, all appear to be filtered out in the lymph glands.

Lymph glands very seldom become infected except secondarily. More commonly the glands become infected through the lymph stream from some focus of infection in the lymphatic chain draining through the given gland group. While this is true of most deep-seated lymph tissue, that superficially placed as the tonsils and adenoids, and that in direct connection with the bronchial tree is liable to primary infection. While such infection may remain localized in the lymphoid tissue, there may be metastatic infection from such foci through the lymph stream to the adjacent nodes or by the blood stream to distant organs.

Recurrent or chronic infections involving any of the organs of the upper respiratory passages as enumerated at the beginning of this paper,

may lead to a general involvement of the deep lymphatics in the neck, with a more or less constant chronic inflammatory process implanted on the mucous membrane. The inhaled air passing over these mucous surfaces will carry the infecting organisms deeper into the respiratory tract, even into the alveoli of the lungs. Wherever these organisms are picked up by the mucous membrane, there is usually a new focus of infection, which results in multiplication of bacteria, destruction of tissue by cell death, and the reparative process by connective tissue elements.

This cycle continuing year in and year out as it does in so many individuals results in a general lymph adenopathy of the lower respiratory organs with various degrees of fibrous thickening of the walls of the bronchi, dilatation of the blood and lymph vessels, and in a thickening of the parietal pleura adjacent to the trachea and large bronchi. The pleura over the apices of the upper lobes is also commonly thickened in these conditions, especially if of long standing as is often the case in sinus infections. An authoritative explanation for this has not been found but it will be remembered that the parietal pleura in this location is in opposition with the subclavian vein anteriorly and the junction of this vein with the jugular is the seat of lymphoid tissue and vessels through which drain all the lymph from the upper respiratory tract.

The more extensive the infection and the longer it has existed, the greater will be the variations from the normal. Very large hilum shadows without calcification (most commonly seen on the right side) and unusually heavy primary and secondary trunk markings which are beaded and fuzzy but do not reach the peripheral lung zone have been common x-ray findings in practically all of our cases having clinical evidence of chronic respiratory infections with no conclusive clinical evidence of tuberculous involvement. Many of these give a service history of gas inhalation or influenza infection.

The lack of accepted standards for normal lung x-ray shadows and the variation limits of these shadows have led to many and most of them indefinite terms for describing slight changes such as "peribronchial thickening," "swollen trunks," "increase in size and density of trunk markings," etc. These findings are present in a large percentage of the chest films of individuals without any clinical symptoms. Hence, the slight changes are not trustworthy as diagnostic of definite organic changes. Faulty technique will also magnify the normal trunk and linear markings.

The chronic non-tuberculous respiratory infections of the influenza or common cold type, which produce these changes in chest films, are in the order of their importance: Chronic infections in the nasal passages and nasal accessory sinuses; chronic pharyngitis and tonsillitis, also advanced

pyorrhea and stomatitis; middle ear and mastoid infections; abscessed teeth, etc. Chronic bronchitis and bronchial asthma are usually secondary to some focal infection higher up.

The chronic suppurative infections are lung abscess and lung gangrene. The chief value of the x-ray here is to determine the extent of the lesion and in which lobe or portion of the lobe it is located. The lung abscess is usually a basal lesion and appears as a circumscribed homogeneous shadow, or if necrosis has taken place, it will appear as a thick walled annular shadow with or without fluid. The presence of fluid and the absence of apical parenchymal densities will differentiate it from a tuberculous cavity.

Bronchiectasis is seen on the film as a basal density appearing as irregular multiple dilations of the main stem bronchi. The clinical history of bronchiectasis should be obtained before a Roentgen diagnosis is justified unless it is a very unusual case.

Thoracic tumors and malignancies, both primary and metastatic, present various Roentgen pictures. The tumors and primary malignancies usually originate in the mediastinum and protrude as smooth outlined homogeneous densities into the lung fields. These may be differentiated from aneurysms of the aorta by study under the fluoroscopic screen for pulsations, changes in position during deep inspiration, etc. Teratoma or cysts may occur in any part of the thoracic cavity and appear as various sized regular outlined densities. The clinical history is necessary before making a diagnosis. The metastasis of malignant growths present shadows of various size, shape and density which are distributed throughout the lung fields without regard to lobes, bronchi or blood vessels. Pneumoconiosis presents irregular, ragged shadows of variable density, usually extending out from the hilum and is bilateral. The occupational history and clinical symptoms will help make the diagnosis.

Pleural effusions and empyema are most often basal and will present a changing fluid level on fluoroscopic examination if associated with pneumothorax. On the film, the shadow is homogeneous and may mask or blot out all lung markings, the outline of the diaphragm and the rib shadows. In extensive cases, the entire lung from apex to base may be involved and the mediastinal organs displaced toward the opposite side.

Lung abscesses or areas of localized pneumonia resulting from foreign bodies in the trachea or bronchi are positive shadows of limited outline extending out from the hilum shadow. Infiltrations in the lung caused by syphilis are usually basal, near the mediastinal shadow and have the appearance of an area of localized pneumonic infiltration.

Chronic fibrous pleurisy is shown as a thickened margin of the adjoining lung field and if transposed over the lung field, will produce clouding. It is most often a basal lesion and if extensive, will cause displacement of the viscera and distortion of the bony thorax.

Pulmonary tuberculosis that produces constitutional symptoms and physical findings, also produces characteristic shadows on x-ray films which indicate accurately the type of pathology, its extent and exact localization, three factors which are of great importance in outlining treatment and making a prognosis. Many methods of classification are described. Dunham's classification published in 1921 is based largely on the difference in type of pathology found in a non-sensitized individual and one who has been immunized by repeated infections. It really represents a primary and a secondary infection. Under the primary or puerile type, he lists:

- (a) Primary lesion with tuberculous nodes.
- (b) Miliary tuberculosis.
- (c) Tuberculous caseous, broncho, and lobar pneumonia without apical lesions.
- (d) Caseous pleurisy.

Under the secondary or adult type, are listed the more common forms:

- (a) Apical fibroid tuberculosis.
- (b) Caseous broncho and lobar pneumonia with apical lesions.
- (c) Fibrous pleurisy or pleural effusion.

The infection by the tubercle bacillus results in the formation of tubercles, both single and conglomerate. Around these foci of infection is thrown out an exudate which is limited to the secondary lobule and produces the fan-shaped shadows on the x-ray film. As the lesion progresses and the protective power of the patient asserts itself, connective tissue proliferation takes place. The amount of fibrosis laid down is in direct proportion to the extent of the infection plus the immunity of the individual. This shows up very beautifully in the films of adults over thirty years of age who have had repeated reactivations of apical lesions.

The fact that the lymph flow is toward the hilum would account for the linear markings which extend from the area of infiltration to the trunk markings and hilum. Here again the older lesions will present more definite and clear cut shadows.

From my observation the average tuberculous lesion follows one of *two* courses:

First, if the patient is well sensitized and the infection is not too massive, the lesion will heal out by fibrosis with very little caseation and complete absorption of the exudate. These are the cases of tuberculosis often unrecognized by the physician or the patient and unless x-rayed at the time of the exudation the only evidence shown in the stereogram will be an increase in the size

of the trunks with linear markings extending through the peripheral zone to the pleura. These usually are beaded and are in the form of a closed fan. This is one of the chief differentiating characteristics between a minimal healed tuberculous lesion and a chronic non-tuberculous infection of the upper respiratory tract with apical pleural thickening. A diagnosis of inactive pulmonary tuberculosis is probably pathologically correct in 95 per cent of all adults over twenty-five or thirty years of age, but such an involvement is not apt to produce any clinical symptoms unless the peripheral zone fibrosis is marked, in which case there are unmistakable physical finding and x-ray shadows. *The usual physical signs*, viz., moderate dullness from the second rib to the third dorsal spine, increased voice conduction, and bronchial or bronchovesicular breathing over the same area, has not in fully half of our cases shown any x-ray evidence of fibrosis or an infiltrative process. Fibroid apical tuberculosis is almost without exception limited to the apices of the upper lobes and is recognized by white fan-like shadows, flocculent or snowflake in type, semi-homogeneous, and interspersed with linear markings in the lung parenchyma just beneath the pleura. The picture varies with the amount of involvement and duration.

Second: If the patient is not sensitized or only partially sensitized and receives even a small dose of tubercle bacilli, the fibroid protective reaction will not be so great, and if a massive infection is received, the fibroid reaction that takes place will have very little effect in delaying or stopping the extension, which takes place chiefly through the lymph channels and bronchi. Since the immediate fibrosis is not effective, the pathological process is most commonly one of exudation, caseation, fibrosis and calcification, or exudation, caseation, liquefaction and cavity formation. This, in turn, if the patient lives, may heal by fibrosis and calcification with absorption of much of the exudate and contraction of the scar tissue.

Caseous bronchopneumonia is the second most common form of tuberculous lung pathology in the adult. It is associated with apical lesions and is believed to be due to the inhalation of droplets laden with bacilli into a primary lobule of the lower part of the upper lobes, the middle or lower lobes. The size of the Roentgen densities and distribution varies in the same case and in different cases. They are homogeneous, of sharp outline, and have the "raisin-on-a-stem" distribution. It may become confluent and simulate tuberculous lobar pneumonia. In acute cases, the confluent type with involvement in more than one lobe usually means a very grave prognosis. Large areas of caseous bronchopneumonia that are well walled off may persist for a long time without producing serious symptoms.

Caseous lobar pneumonia, on the x-ray film,

makes a homogeneous shadow, is usually fan-shaped and occupies a part or all of one lobe. This type of lesion breaks down very rapidly, producing cavities and is most often found in the cases of massive infection with pronounced clinical symptoms and physical findings. In these cases the prognosis is hopeless.

Tuberculous cavities show on the film as annular shadows and can be easily recognized in sizes varying from a small pea to a large orange, or a whole lobe of a lung. These appear as circular areas of lesser density surrounded by a ring of increased density. This ring corresponds to the fibrous capsule and the infiltrated lung structure around the capsule.

In the treatment of tuberculosis by pneumothorax there is no method of diagnosis comparable to the x-ray in estimating the amount of collapse, the presence of adhesions and the need for further injection of air. The use of the fluoroscope for this work is almost as satisfactory as the more expensive films, but does not provide a permanent record.

Passive congestion of the lungs associated with heart disease may produce hilum and trunk enlargement with peripheral lung zone densities simulating respiratory pathology.

The technical requirements for good stereoroentgenograms are as follows:

1. Both films taken while patient holds breath.
2. Patient in an upright position if possible.
3. A rapid exposure $1/4$ to $1/20$ of a second for each film.
4. Percision equipment for shifting tube and films.
5. The tube at least 30 inches from the patient.

These pictures are taken postero-anteriorly with the patient facing the film, and the film exactly at right angles to the tube. Right or left oblique and lateral views are valuable in studying mediastinal conditions.

Good photographic work is the first essential to correct interpretation and may be judged on the following points:

1. A clear view of the first rib on either side.
2. Complete visualization of the diaphragm and costophrenic angles.
3. A distinct outline of the lumen of the trachea and the right and left bronchus.
4. An accurate stereoscopic image with three dimensions.

Each case should be fluoroscoped at the time the films are made in order to study the mobility of the chest wall, the diaphragm, and their relation during respiration to intrapulmonary and pleural pathology.

During the last eight months, 715 patients were referred to the x-ray laboratory in the U. S. Veterans' Bureau Clinic for an x-ray report on the chest. It is the practice of this clinic to refer only those cases for an x-ray study

where there is some question as to the diagnosis or to determine the progress of the patient under treatment.

In the 715 cases, 239, or 33 $1/3$ per cent, were given an unqualified x-ray diagnosis of pulmonary tuberculosis which was of clinical significance. Of this number, 146 presented the typical "cottony densities" or other signs of activity; 211, or 29 per cent were classed as "insufficient evidence to warrant a diagnosis of pulmonary tuberculosis which was of clinical importance," and 123 of these showed changes which would indicate various degrees of some non-tuberculous infection; 64, or 8 per cent, were classed as negative for any pulmonary pathology. *It follows then that 514, or 71 per cent of the total could be definitely classified by the Stereo-Roentgenograms.* The remaining 201 cases, or 29 per cent of the total, presented shadows which warranted a diagnosis of "suggestive of inactive pulmonary tuberculosis." Out of this group of 201 cases, 46 showed evidence of an associated non-tuberculous respiratory infection. Ninety-five, or 14.5 per cent of the total showing pathological changes, presented definite shadows indicating some form of pleurisy.

CONCLUSIONS

1. Postmortem examination has proved that pathology in the lung as shown in the x-ray stereogram, varies in quality and degree of density from the dark to the light shadows as follows: (1) Serous exudate; (2) cellular exudate; (3) fibrosis; (4) caseation; and (5) calcification. On this hypothesis a good stereoscopic image of the lungs will provide a method of studying pathological tissue change in the living host in much the same manner as the pathologist makes gross observation at the autopsy table.

2. The roentgenologist is not a diagnostician in the clinical sense but is more of a consultant and as such should have some knowledge of the history, symptomatology and physical findings. He should not make a clinical diagnosis, no matter how positive his findings, but he should render a complete word picture of everything abnormal in the films and conclude with a diagnostic summary or x-ray diagnosis. The x-ray diagnosis usually is worth more to the clinician than a minute description of the densities, because it can be given in standardized terms.

3. In the upper respiratory tract, the x-ray is of value as a diagnostic adjunct in determining the presence or absence of focal infection in the nasal accessory sinuses teeth, and mastoids.

4. In chronic infiltrations of the lungs, pneumothorax and chronic fibrous pleurisy, the most accurate method of determining the amount and type of pathology is by means of the x-ray.

5. A Roentgen diagnosis of pulmonary tuberculosis *is never warranted* on enlarged trunk

and linear markings and hilum infiltration. There must be definite parenchymal infiltrations of different densities.

6. The gateway to greater knowledge of chronic respiratory diseases is in the co-ordination of the work of the clinician, the roentgenologist and the pathologist, with more autopsies and detailed dissection of the lungs.

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SPECIAL ARTICLES

SUMMER COURSES IN THE INDIANA UNIVERSITY SCHOOL OF MEDICINE

During the summer of 1926 short courses beginning June 10 and lasting for six weeks will be offered to the physicians of Indiana by the Indiana University School of Medicine at Indianapolis. Unusual clinical and laboratory facilities are available for these courses and opportunity is offered for graduate study. The following courses will be offered:

Current Problems in Biochemistry (Biochemistry 9). Biochemistry and pharmacology as applied to medical problems. Lectures, four hours a week.

Pharmacology (Pharmacology 11). A review of scientific evidence for the action of important drugs, new remedies, glandulotherapy, and related problems. Four lectures a week.

Physical Diagnosis (Medicine 26). Demonstration of and drill in the methods of diagnosis applied to those ward patients with unusual conditions. Limited to eight.

Ward Visits (Medicine 25). Ward visits, followed by a more detailed discussion of special cases; opportunity to assist the internes in making special examinations, as lumbar punctures, paracentesis, blood cultures, blood counts, blood chemistry, urine examinations, roentgenological examinations, functional renal tests, basal metabolism, determinations, etc. Limited to twenty-five.

General Pathology (Pathology 7). Open only to graduate students in medicine. A lecture course summarizing general and special pathology, illustrated by gross and microscopic specimens and by demonstrations with projectoscope. The course includes attendance at autopsies in the university hospitals. Five lectures and laboratory periods per week.

Disease Production and Resistance (Pathology 8). Open to graduates and to senior students in medicine. Presents the mechanisms by which

various disease manifestations are produced. Summarizes the pathological physiology of bacterial diseases, toxemias, injuries by physical agencies, neoplasia, and other conditions. Stress is laid upon the principles of immunity as now understood, and upon the application of these to diagnosis and to specific therapy. Three lectures and laboratory periods per week.

Nutrition Course. A short course of lectures on foods and nutrition, designed for nurses and dietitians as well as for the medical man.

Clinics are held in the following subjects: Dermatology, genito-urinary, gynecology, ophthalmology, rhinology, otology, and laryngology, and surgery. Ample clinical material in both hospital and dispensary patients is available for these clinics.

FEES

Dermatology; rhinology, otology, and laryngology; surgery; ophthalmology; genito-urinary; gynecology clinics. Pharmacology (Pharmacology 11); current problems in biochemistry (biochemistry 9); disease production and resistance (Pathology 8); ward visits (Medicine 25). \$15.00 per course.

Nutrition lecture course, \$5.00.

Physical diagnosis (Medicine 26); pathology (Pathology 7). \$25.00 per course.

Persons enrolling in three or more courses will be charged on the basis of the scheduled rates for the first two courses with a reduction of \$5.00 from the scheduled rates on each additional course.

Since the number of students enrolling in these courses must necessarily be limited, and the giving of the various courses is *dependent upon the number of applicants for each course*, it is urged that those desiring to enroll apply to the registrar, Indiana University School of Medicine, Indianapolis, for registration card, indicating the course desired. For further information address the registrar, Indiana University School of Medicine, Indianapolis, Ind.

CLEARING UP THE QUACKS

This is the sequel to the story entitled "Clearing the Lame Duck Pond," which appeared in the February, 1925, number of THE JOURNAL. You may recall this article telling of the activities of the Indiana State Board of Medical Registration and Examination in closing up several of the leading medical quack establishments operating in Indianapolis. At that time the State Board made an investigation of the clinic located at 151 North Illinois street, which was conducted under the name of "Dr. Dickerson and Associates." As a result of this investigation, Dr. George L. Dickerson had his license revoked on the charge that he had loaned his license to a non-medical man by the name of William M. Kemp. Kemp, it seems, had been run out of Missouri at the time of the diploma mill scandal,

had come to Indianapolis and formed a partnership with Dickerson. The Dickerson establishment was found to be a typical quack shop with all its embellishments.

A quack shop force consists of a "case taker" or "front office man," who takes the data on the patient and conducts him to an inner office; a "bozoo" who is a licensed physician working on a salary from \$30 to \$45 a week, and a third man who is practicing medicine without a license and who is called the "studebaker." The "studebaker" is king of the shop and the business man of the outfit. As in this case, Kemp, the "studebaker," was a partner and shared in the profits of the concern with Dr. Dickerson the advertising physician who ran the office.

Following the investigation of the Dickerson "joint," Kemp, the "studebaker," left, and is now a fugitive from justice. Dickerson, the owner, had his license revoked and is thought to be in Florida, while Winfield Scott Rowley, M. D., the "bozoo" in the Dickerson establishment, enjoined the Board from revoking his license. After the injunction was dismissed, the Board revoked Rowley's license on the grounds of aiding and abetting a fraud by loaning his license and being associated professionally with one who had no license. Rowley appealed his case to the Marion Circuit Court, and his appeal was heard by Judge Harry Chamberlain. J. W. Bowers, M. D., member of the State Board of Medical Registration and Examination, who had investigated the Dickerson clinic with E. M. Shanklin, M. D., another member of the Board, acted as prosecuting witness. Dr. Bowers had his information well in hand, and on the stand told of the visit he and Dr. Shanklin paid to the quack shop. He told how Kemp in the hearing of Rowley said that he, Bowers, had an incurable disease and needed treatment. He told many other illuminating things about quack shop methods. The court found against Rowley, and sustained the findings of the State Board in revoking Rowley's license.

The decision of Judge Chamberlain in upholding the right of the State Board of Medical Registration and Examination to revoke the license of a physician who loans his license, gains in weight each day and has established a precedent in Indiana. *It means that any licensed doctor in the state of Indiana who works in an office or so-called medical clinic, associated professionally with non-medical men, is guilty of aiding and abetting a fraud and that the courts will uphold the findings of the Board.* This is the second time in the United States and the first time in Indiana that the court has sustained such a finding by a State Board. Judge Chamberlain's finding is far reaching and should help the State Board in its efforts to clear the state of quacks who are ever preying upon the public.

Great credit must be given Judson Stark, assistant prosecuting attorney of Marion county, for his splendid work in handling the Rowley case. From first to last Mr. Stark's work was most admirable and he showed himself master of the situation at all times.

NEWS NOTES FROM INDIANA UNIVERSITY SCHOOL OF MEDICINE

Appointment of eleven internes from the graduating class of the Indiana University School of Medicine for a twelve months rotating service in the university hospitals, the Robert W. Long and James Whitcomb Riley Hospital for Children, has been announced. Hospital service will begin after the men receive their M. D. degrees from Indiana University, June 8. The services will include medicine, obstetrics, surgery, clinical laboratory, admitting room, pediatrics and outpatient periods. The hospitals are organized as units of the school of medicine and staff service is by members of the faculty. The appointees are: Loniel H. Allen, Bedford; Wendell W. Ayres, Upland; Robert E. Bitner, Fort Wayne; Eugene F. Boggs, Salem; Ray Borland, Bloomington; Emil H. Dowell, Terre Haute; James D. George, Indianapolis; Wilbur J. Marshall, Logansport; Harold Nugen, Auburn; Paul P. VanArsdel, Greencastle, and Russel C. Wilson, Columbus. The regular requirements for the M. D. degree include two years of pre-medical work in college and four years in medical school, but several of these men selected have had more than the required amount of pre-medical education. Allen, Ayres, Dowell, VanArsdel and Wilson completed four years of college before entering the medical school. Seven years of combined medical and college work instead of the required six years have been taken by Boggs, Borland, George, and Marshall. All have previously received the A. B., or B. S., degree.

A class of eighty from the School of Medicine in Indianapolis will receive the M. D. degree from Indiana University at the annual commencement exercises at Bloomington, June 8. Exercises will be held at 10 a. m. to permit visitors who come by auto to get away before the shades of night overtake them in rough detours made necessary by construction work on state road 22, between Martinsville and Bloomington. Practically all graduates will serve hospital internships of a year or more before entering private practice. In addition to the university hospital appointments, those whose appointment to hospitals has been already announced, include: Harry A. Alexander, Indianapolis. Alameda County Hospital, San Leandro, Cal.; D. L. Bower, Medora, St. Elizabeth's Hospital, Lafayette; James B. Burcham, St. Joseph's Hospital, Fort Wayne;

William R. Clark, Indianapolis, St. Joseph's Hospital, Fort Wayne; John E. Dalton, Bedford, Indianapolis City Hospital; William D. Day, Seymour, United States Naval Base Hospital; Herbert E. Dester, Indianapolis, St. Louis (Mo.) City Hospital; Abraham Fichman, Fort Wayne, Indianapolis City Hospital; Harold J. Halleck, Rensselaer, Indianapolis City Hospital; Rojer J. Hanna, Delphi, Ancker Hospital, St. Paul, Minn.; James M. Himler, Indianapolis, Western Pennsylvania Hospital, Pittsburgh, Pa.; William E. Jenkinson, Boston, Ind., Methodist Hospital, Indianapolis; John E. Komoroske, Mishicot, Wis., Indianapolis City Hospital, eighteen months; Allen H. Lee, Youngstown (Ohio) Hospital; Harold D. Lynch, Evansville, Philadelphia (Pa.) General Hospital, two years; M. W. Manion, Garrett, Harper Hospital, Detroit, Mich.; John M. Masters, Indianapolis, Indianapolis City Hospital; George A. Obery, Wolcott, St. Joseph's Hospital, Fort Wayne; Morris B. Paynter, Bloomington, Methodist Hospital, Indianapolis; Harold E. Puterbaugh, Greenville, O., Grauli Hospital, Columbus, O.; James V. Richert, Terre Haute, St. Anthony's Hospital, Terre Haute; Clarence V. Rozelle, Anderson, Indianapolis City Hospital; Charles H. Ruch, New Ringgold, Pa., Allentown (Pa.) City Hospital; J. C. Silvers, Muncie, Indianapolis City Hospital; Robert A. Smith, Newcastle, Methodist Hospital, Indianapolis; Clarence H. Schulz, Indianapolis, Grasslands Hospital, New York City; R. H. Stiehm, Indianapolis, Wisconsin General Hospital, Madison, Wis.; Margaret A. Telfer, Bloomington, New England Hospital for Women and Children, Boston, Mass.; Charles D. Thomas, Danville, Indianapolis City Hospital; Albert J. Wineland, Elkhart, St. Vincent's Hospital, Indianapolis.

Seventeen young women who will complete their three years' course in the Training School for Nurses and receive the degree of graduate nurse from Indiana University in June are: Louis B. Faust, Warren; Eula Alexander, Fortville; Marguerite Sherlock, Washington; Margaret L. Bruce, Elwood; Edna Shafer, Trenton, O.; Lois Lindsay, North Madison; Marjorie McWilliams, Olney, Ill.; Mary Jane Hughes, Alexandria; Margaret Lower, Wabash; Lydia J. Frese, Anderson; Mary A. Miller, Thorntown; Eva Rhoda, Bedford; Sarah Cogshall, Bloomington; Ardella Goshen, Logansport; Evelyn Earll, Laporte; Winifred Sink, Fort Wayne, and Rosalie Esarey, Bloomington. This class is the last which began training when the Robert W. Long was the only University hospital. The next class entering after completion of the Riley Hospital is more than twice as large.

Opportunities for graduate study will be offered to physicians of Indiana by the Indiana Univer-

sity School of Medicine at Indianapolis in short courses, beginning June 10 and lasting six weeks. Details of the courses are given in the Indiana University News Letter, which may be had from the Registrar, Indiana University School of Medicine, Indianapolis. Since the number of students enrolling in the courses must necessarily be limited and the giving of the various courses is dependent upon the number of applicants for each course, it is urged that those desiring to enroll apply to the Registrar for a registration card, indicating the course desired.

Unusual clinical and laboratory facilities are said to be available through convenient location on the same campus of the School of Medicine building and the James Whitcomb Riley Hospital for Children and Robert W. Long Hospital, which are a part of the medical school. Courses offered will include physical diagnosis, emphasizing study of ward patients with unusual conditions; ward visits, including discussions and opportunity to assist in special examinations, as lumbar punctures, paracentesis, blood examinations, roentgenological examinations, functional renal tests and basal metabolism determinations; disease production and resistance, laying stress on principals of immunity and application to diagnosis and specific therapy; nutrition course, lectures on foods and nutrition for physicians, nurses and dietitians; general pathology, lecture course, illustrated by gross and microscopic specimens and including attendance on autopsies in the University hospitals; pharmacology review of scientific evidence for action of important drugs, new remedies, glandulotherapy, and related problems; current problems in biochemistry, with application of biochemistry and pharmacology to medical problems.

Clinics will be held in dermatology, genitourinary, gynecology, ophthalmology, rhinology, otology and laryngology and surgery.

Instructors will include Dr. Emerson, Dr. Pfaff, Dr. Moon, Dr. Turner, Dr. Wishard, Dr. Page, Dr. Gatch, Dr. Cregor, and Dr. Morrison. One or more courses may be taken.

Engraved copies suitable for framing of "The Ten Commandments of Medical Ethics," written by Dr. Frank B. Wynn, deceased, have been presented to the School of Medicine by Mrs. Wynn, and their son, Dr. James W. Wynn, and will be given to members of each graduating class.

In response to inquiries, R. E. Neff, registrar, states that the only expense attached to post-graduate courses given by the faculty of the School of Medicine for various county medical groups is that of paying the transportation of the instructors. Members of the faculty give their time freely for this extension work.

The athletic situation does not worry the faculty of the medical school. The only games the medical students find time for are occasional horse-shoe pitching contests or games of baseball with an indoor baseball during the noon hour.

Health talks, demonstrations and inspections have been resumed by representatives of the field nursing service of Indiana University, under di-

rection of Mrs. Ethel P. Clarke, director of the Training School for Nurses, and Dr. Edna H. Edmondson, of the public welfare service of the extension division. Two graduate registered nurses who are doing the work are Miss Flora Dutcher and Miss Anna Newlin. A week is spent in each county, visiting schools, mothers' clubs and other groups.

C. R. MACDONNELL.

KALA-AZAR

To date, only four cases of kala-azar, three of which occurred in the United States, have been reported in American medical publications. The fourth case occurred in an Italian adult from Asuncion, Paraguay. Charles Ivan Junkin, Lackawanna, N. Y. (*Journal A. M. A.*, Feb. 13, 1926), reports a fifth case in an East Indian, aged twenty-two, who was born and raised in the Calcutta district, and had been in the United States sixteen months. He gave no history of contact with kala-azar cases and had successfully passed medical examinations at Colombo, the port of embarkation for America; at the Suez canal, en route, and at the port of entry to the United States. For several years before coming to this country he had been employed as a dock laborer at Colombo. His father had died eight years before from a cause unknown to the patient. The mother, three brothers and one sister were all alive and had had no serious illnesses. The diagnosis at the outset was obscured by the history of a trauma and by the presence of hematuria. Repeated smears of the peripheral blood failed to show the presence of Leishman-Donovan bodies. The spleen showed appreciable, but slight, increase in size following admission, and there were no subjective complaints. After five months observation, it was decided to do a laparotomy. The spleen was found enlarged, firm, smooth and slightly purplish. A quantity of splenic pulp was obtained by puncture. Smears were made and stained with Wright's blood stain. Typical Leishman-Donovan bodies were found in large number, both extracellular and in the cytoplasm of the large splenic macrophages. Intravenous treatment with antimony and potassium tartrate was commenced, and continued for about four months when it was thought advisable to discontinue the treatments with the drug, as no beneficial effect had been observed. The white cell count showed no appreciable change during the course of treatment that could in any way be ascribed to a beneficial action of the drug. The spleen, which at the commencement of treatment was down to the level of the umbilicus and extended to the midline, showed no regression as the result of treatment. The general nutrition of the patient had become noticeably worse. In all, twenty-five treatments were given, a total of 0.3 Gm. of antimony and potassium tartrate. For five weeks quinine medication was given, 10 grains (0.65 Gm.) of the hydrochlorid after each meal with no apparent change in the patient's physical condition. Subjectively, however, he was much better and left the hospital against advice. He has not been observed since that date. Junkin is convinced that the infection in this case occurred before the patient left India.

SIMULTANEOUS CHOLECYSTOGRAPHY AND TESTS OF HEPATIC AND RENAL FUNCTIONS

Evarts A. Graham, Warren H. Cole, Glover H. Copher and Sherwood Moore, St. Louis (*Journal A. M. A.*, Feb. 13, 1926), assert that the sodium salt of phenoltetra-iodophthalein not only makes possible the visualization of the gallbladder apparently as well as its isomer, sodium tetra-iodophenolphthalein, but it also stains the serum sufficiently to enable its detection after alkalization. The color obtained, however, is slightly

more purple than that due to phenoltetrachlorphthalein. Roentgenograms of the gallbladder of maximum intensity have been obtained within four hours in normal subjects after intravenous injection of 0.055 Gm. per kilogram of body weight. No general toxic reactions have occurred so far in any of the patients who have been injected, but there has been a slightly greater tendency to venous thrombosis at the site of injection, although apparently this complication can be obviated by washing out the vein with physiologic sodium chloride solution immediately after the injections. The authors do not feel that they have yet sufficient knowledge to recommend the use of this substance as a substitute for sodium tetraiodophenolphthalein for cholecystography, and are presenting this information only as a preliminary report. It is possible, however, that further work with it will show that because of possibly faster excretion through the liver, it will shorten the time now required for a cholecystographic examination by the use of sodium tetra-iodophenolphthalein. It may also be possible to secure equally good cholecystograms with much smaller doses of this substance and thereby to eliminate practically all toxic symptoms. Another feature of sodium phenoltetra-iodophthalein is that, in addition to being excreted in sufficient amount through the liver to give excellent cholecystograms, it is also excreted sufficiently through the kidneys to enable its recognition colorimetrically in the urine after alkalization. Thus, it seems probable that by the use of a single dose of this substance simultaneous observations can be made of the renal function, of the hepatic function and of the condition of the gallbladder, a combination of observations which hitherto has been impossible with a single substance.

EFFECT OF MENTAL AND EMOTIONAL STATES ON LEUKOCYTE COUNT

The effects of mental and emotional states on the number and types of leukocytes in the peripheral blood of animals and man have been determined by Jacob M. Mora, Leo E. Amtman and Samuel J. Hoffman, Chicago, (*Journal A. M. A.*, March 27, 1926). In ten dogs, an increase of from 30 to 150 per cent in the number of leukocytes was observed. In thirteen patients presenting noninfected surgical cases, including uncomplicated hernias, varicoceles, hydroceles and hemorrhoids, the anticipation of an operation in the immediate future was sufficient to induce alteration in the mental and emotional states. Control counts were taken at frequent intervals during the second or third days preceding the operation. The final count was taken immediately before the operation, with the patient on the operating table. In seven of the thirteen cases, there was definite evidence of fear and apprehension, while the remaining six patients appeared to be indifferent. The former showed an increase of from 12 to 100 per cent in the number of leukocytes, while in the latter there was little or no change. The differential counts both in dogs and in man revealed a relative increase in the polymorphonuclear forms. The practical import of this interesting reaction lies in the fact that this phenomenon may have to be considered as a not infrequent cause of leukocytosis, especially in operative cases, and may be confused with infective or other types of leukocytic change.

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Devoted to the Interests of the Medical Profession of Indiana

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EDITORIALS**THE DALLAS SESSION OF THE A. M. A.**

If any doubt existed as to the success of an annual session of the A. M. A. in the far southwest, and in a city of moderate size and therefore supposed to have limited accommodations for a large convention, those doubts were dispelled during the session of the A. M. A. held at Dallas late last month. Nearly 4,200 physicians registered at the session, and that represents the largest attendance at any session held in the South. It may be said truthfully that the session also was one of the most successful ever held, both in point of scientific progress, as well as social entertainment provided.

Dallas has been called the New York of the Southwest, and it certainly gives evidence of sustaining the title. Through its numerous large hotels, its many towering business blocks of eighteen to thirty stories in height, its well paved streets, metropolitan traffic arrangements, up to date mercantile establishments, fine residences, splendid public buildings and hospitals, it proves itself equal to any city in progressiveness. The citizens of Dallas also lived up to the reputation of the South for generous hospitality which was evident among all classes of people who seemed bent upon rendering every possible courtesy and attention to the visitors. The concert by the Dallas symphony orchestra, an entertainment that would do credit to any city in the country, was the beginning of the general entertainment and was followed by the barbecue and the unique Mexican dinner, each of which on separate days served several thousand people. This was augmented by numerous private entertainments, some of which included as high as one thousand guests. The smaller affairs, including dances, dinners, luncheons, lawn parties, etc., were too numerous to mention.

Excepting the meetings of the House of Delegates held on the roof of the hotel headquarters, all of the meetings of the Association were confined to the exposition grounds where all of the activities were housed in buildings close together. The commercial and scientific exhibits had splendid quarters, and as much may be said for the scientific meetings where an abundance of room, good ventilation, and satisfactory acoustic

properties were afforded. The scientific exhibit and the motion picture show proved to be educational features that were appreciated by thousands of physicians who visited them. The commercial exhibit, as usual, was large, representative, and instructive. The programs of the various sections were of unusual interest and met with extended discussion on the part of those present.

The whole work of the House of Delegates was along constructive lines as usual, and among the actions taken the following may be mentioned:

The progress of the Council on Physical Therapy was approved, but there was refusal of the recommendation to establish a special section on physical therapy until the need is more apparent.

Approval was given to the effort to improve the facilities for graduate instruction, perfect facilities for intern training and the standardization of hospitals.

The effort to secure the co-operation of every state medical association and its component societies in order to compile a complete and adequate list of clinical laboratories was endorsed.

The Council of Medical Education and Hospitals was urged to make further efforts to reduce the average age at graduation in medical schools, and in this connection the Council was urged to consider the feasibility of allowing medical students credit for courses taken during the summer months in a manner similar to the plan followed in the academic departments.

Special consideration was given the subject of nursing education, and a resolution was adopted endorsing the need throughout the country for a basic trained nurse, and recommending that all pupil or student nurses shall receive basic training in training schools in hospitals giving courses of two years. It also was recommended that the curriculum should be revised thoroughly so as to provide bedside instruction, class room recitation, and above all the teaching of the art of nursing by precept and example so as properly to fit the nurses for their work as nurses in the hospital and in the home.

Contract practice came in for much discussion and consideration on account of the fact that brokers, under the guise of health, accident and sickness insurance, are offering to sell medical services to the laity, or are actually entering the field of medical practice. The whole matter of contract practice was referred to the Judicial Council with instructions to point out the trend and dangers to patient and profession inherent in this movement, and to set forth a policy of the American Medical Association in a report that is to be presented at next year's annual session.

Concerning medical legislation, a resolution was passed urging every state medical association to co-operate to the fullest possible extent with the Board of Trustees in the matter of legislation,

both state and national, and the Board of Trustees was requested to render assistance as much as possible in defining and carrying into effect legislative policies.

The plan for encouraging periodic health examinations was approved and the Board of Trustees was directed to prepare model forms of letters and other literature to be used in furthering this movement. In this connection the House of Delegates requested the Board of Trustees to appropriate sufficient funds to defray the expenses of a survey, the purpose of which is an investigation of ways and means to best promote public health education.

A very important step was taken in the adoption of a resolution recommending remedial legislation and such change in court procedure as will correct the abuses of expert opinion evidence, and endorsing the principle that in civic and criminal cases the court may appoint expert medical witnesses who shall be paid out of public funds, and who may furnish a written report; and that the American Medical Association offers its cooperation by such means as lie in its power to promote such legislation as will be mutually satisfactory to the medical and legal professions toward the correction of the present unsatisfactory procedure of presenting expert opinion evidence.

The bill before Congress to provide for the coordination of the public health activities of the government was approved.

The conduct of the activities of the Association in charge of the Board of Trustees and various councils was warmly commended.

The election of officers resulted as follows:

President-Elect—Jabez N. Jackson, Kansas City, Mo.

Vice-President—John O. McReynolds, Dallas, Texas.

Secretary—Olin West, Chicago (re-elected).

Treasurer—Austin A. Hayden, Chicago (re-elected).

Speaker of the House of Delegates—Fredk. C. Warnshuis, Grand Rapids, Mich. (re-elected).

Vice-Speaker of the House of Delegates—A. H. Bunce, Atlanta, Ga.

Trustees—Charles W. Richardson, Washington, D. C. (re-elected); Joseph A. Pettit, Portland, Ore. (re-elected); J. H. J. Upham, Columbus, Ohio (re-elected), and Rock Sleyster, Milwaukee (to succeed Thomas McDavitt).

Washington, D. C., was selected as the place for holding the next annual session.

CROSS EYES

An article on "cross eyes" for lay consumption, issued by the Bureau of Publicity of the Indiana State Medical Association and published in the lay press, ought to prove instructive and valuable to many parents who have cross-eyed children. We even are forced to admit that such an article

may serve a useful purpose if put into the hands of many general practitioners who seem to have the foolish notion that they can give advice concerning many abnormal conditions of the human body about which they know little or nothing, for it is no uncommon thing for parents to be advised that their children will outgrow cross eyes, that glasses are not necessary for children, and occasionally a particularly ignorant general practitioner will tell parents that a young child with beginning non-paralytic squint should be operated at once.

One of the reasons why many people are suspicious of doctors is because there are altogether too many doctors who are offering dogmatic advice concerning conditions which they do not understand or perhaps never came within the domain of their training. They seem to be afraid to acknowledge that there is something that they do not know, and in consequence not only they but the public suffers through their ignorance. In reality, the doctor who usually receives the greatest respect from the public is the one who is entirely honest in his advice, and who gives advice based upon his knowledge or experience, or both, and not upon mere guess work. If he runs up against a puzzling case, or a condition about which he knows little or nothing, he makes it a point to secure trustworthy information before offering opinion, or he calls to his aid someone who is capable of furnishing the required information and attention.

The child with cross eyes is not uncommon, and the parents of such a child, being solicitous for the child's welfare, deserve intelligent and trustworthy advice as to what to do. It is the rankest kind of ignorance that will prompt any doctor to say that the child will outgrow the cross eyes, or that it does not require the attention of some one skilled in the treatment of eyes who in all probability will adjust appropriate glasses to correct the error of refraction that primarily is responsible for the squint, and no competent eye specialist ever would recommend operation to correct a non-paralytic squint in a young child.

HENRY FORD HOSPITAL

The Henry Ford Hospital in Detroit in many respects is an institution constructed, equipped and conducted according to advanced ideas. Aside from the fact that it is a real hospital, it also combines the features of a home or first class hotel, and to the casual visitor it impresses one as being like an ordinary high grade hotel because of the furnishings and equipment. There is a well furnished lobby with lounge, easy chairs, and even a newsstand from which daily and Sunday papers are delivered to the patients and the *Saturday Evening Post* on Thursday without charge. There also are available barber service in the rooms, valet service, an up-to-date drug store, an

optical department, and a telephone and telegraph office. The rooms are all private, furnished much as any private room would be furnished, with rugs on the floor, curtains at the windows, and each has its private bath with hot, cold and ice water on tap. In every bath room there is a complete unit equipment of utensils, bedpan, urinal, wash basin and arrangements for cleaning them, so that there is no carrying of these unsightly objects up and down corridors for service or cleansing. The operating rooms are fully equipped with every modern appliance, and the designers have succeeded in doing away with the hospital atmosphere which comes from operating room and dressing room smells and the other features of a hospital that are so objectionable to the sensitive patient. The staff is on a salary basis throughout, and while outside physicians may send patients there, they are not permitted to bring patients there or to give them attention there. The entire hospital has been financed and maintained entirely by Mr. Ford and the members of his immediate family, and the idea has been to furnish high class medical and surgical services to those who are able and willing to pay fees for such services, and accordingly a flat fee is made for most of the services rendered. There are no charity patients. Originally it was thought that such a hospital should be self-supporting, but experience has shown that ever since the hospital was established there has been an annual deficit, which now totals more than two million dollars. Everything must be paid for in advance, and all fees of whatsoever kind go to the hospital. The average charge is about \$125 to \$150 for the combined hospital and professional fees.

What a pity it is that Mr. Ford, with his genius for organization and his immense wealth, could not appreciate the futility of attempting to run a hospital as he runs his flivver plant, with flat fees for everything. The truth of the matter is that the hospital itself should be run as a business proposition and could be made self-supporting, but a great mistake was made in thinking that the personal equation could be solved by placing the medical men on a salary basis and fixing the fees for operations and other professional services at flat rates like you fix the price of the parts for a flivver. The staff should be composed of reputable and qualified physicians and surgeons, as no doubt is the case in the present plan of operation, but they should receive remuneration in keeping with the amount and character of the services rendered, and collect it from the patients, all charges being based upon the ability of the patient to pay. There is no reason why the multimillionaire and the exactions he requires, and the reputation and responsibility that is entailed in giving him attention, should be charged the same fee that is charged to the floor walker in a department store, or a member of the so-called great middle class. Neither should the hospital charge

such a patient a flat rate that applies to everyone else. All of the conditions are different and justify a difference in the rewards. Evidently Mr. Ford is beginning to find this out, and there is a general belief that the policy of his hospital will change before long, and when that time comes Mr. Ford will be in a position to not only make his hospital self-supporting but worthy of the highest commendation on the part of the medical profession as well as the public.

CONVENTION FACILITIES

WE are convinced that the present tendency of holding conventions in places that not only afford ample accommodations but offer opportunities for rest and wholesome recreation is wise. The large cities may offer a variety of attractions, and abundant accommodations though widely separated, but such places do not offer the rest and recreation so badly needed by the average physician, nor do they give opportunity for the development of acquaintanceship and fellowship which should form a vital item in the success of our associations. Golf, tennis, riding, swimming and other sports now are indulged in by many members of our Association, and it is entirely proper to take this phase of the subject into consideration when deciding upon the places for our medical conventions. One of the reasons why Atlantic City has been so popular as a place for the annual sessions of the A. M. A. has been that it not only offers abundant accommodations, but it offers the invigorating effects of sea air and the opportunity to indulge in various recreations.

It may be argued that our national association is so large that few cities and fewer resorts have sufficient facilities for entertaining it properly, but this argument would not hold with the smaller associations and in particular the state medical associations. In this connection it is worthy of note that the Indiana State Medical Association this year meets at West Baden where all of the members and guests and the activities of the Association may meet and be under one roof, a feature which, as everyone who has attended a convention knows, is a decided advantage. Aside from this, those who attend the convention have the opportunity of indulging in golf, tennis, swimming, riding, hiking, and other recreations during the interim of meetings, and there is no time lost in going long distances to attend various meetings or to find recreation, no taxi fares to bother with, and no noise, confusion and distraction such as is found in the larger cities. Some criticism has been raised to the effect that resorts seek conventions for purely commercial purposes and for the benefit of hotels, but isn't that true with every city that invites the convention? Why do the hotel associations and convention bureaus of Indianapolis, Evansville, Fort Wayne, South

Bend and other cities in Indiana make extraordinary efforts to secure conventions of every type, including the annual session of the Indiana State Medical Association, if it is not to make money? In the final analysis what do the members of the Indiana State Medical Association care about the legitimate commercialism of this proposition as long as the Association secures what it needs and wants in the way of accommodations and facilities of every kind? The consideration of this whole subject should be based upon the needs of the Association and its members from a scientific and recreational standpoint. The time has passed when our conventions consist of long and tedious meetings devoted to scientific work, with few or no opportunities for recreation or the development of better acquaintanceship among members, and ending with every one going home to rest up. The old saying, "all work and no play makes Jack a dull boy" is quite true as pertains to the practice of medicine, and is exemplified when medical men at conventions devote their whole time to reading and discussion of scientific papers. We do more and better work when we combine social and recreational features with our scientific programs and that is why we are in favor of holding our conventions where these features can be brought into play.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital. We invite and urge you to use this Service.

It is absolutely free to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve you.

PRESERVE your pamphlet on periodic health examination that the Indiana State Medical Association has sent you gratuitously and don't forget to use it as your guide.

COUNTY medical societies and other organizations should make use of the lantern slides dealing with health topics, that will be loaned by the Bureau of Health and Public Instruction of the A. M. A.

WE hope the program committee for the West Baden session of our state medical association will arrange for a short but intensely practical series of papers and demonstrations, by men known to be capable to present their subjects creditably. Furthermore, the bulk of the essayists should

come from our own state for we have enough good men to guarantee a fine program.

SOME of the officers of sections of our association complain that they have had difficulty in getting up a program for the West Baden session. There should be enough volunteer papers to fill a half dozen programs, but no one should offer anything unless it contains something new or such a complete resume of old ideas that the contribution is worthy of consideration.

As a vacation trip to which scientific advancement forms a part, nothing equals the European instruction tours requiring from eight to fourteen weeks during the summer months, and conducted by well known American clinicians. We heartily commend them to the doctors who would like to pay a visit to European clinics but dislike the disadvantages and added expense of going independently.

THERE are a few doctors who complain about their county, state and national medical associations but who never offer constructive criticism or give any helpful support to the organizations that have done so much to maintain the standing and traditions of the medical profession. If a few of those fellows will get to work in their medical societies, with a true spirit of co-operation, their ideas will change.

THE honest and competent physician who is interested in maintaining honored traditions, and who is in the practice of medicine as a profession, should receive such compensation for his services as will enable him to maintain himself and his family in comfort and to make provision against the time when he can not keep up professional activities.—*From the report of the Judicial Council of the A. M. A. at the Dallas Session.*

THE secretary of the A. M. A. suggests that every county and district medical society should devote at least a portion of two meetings during the year to the subject of periodic medical examinations. With the aid of officers of the State Medical Association concerned, each county and district medical society should be able to secure a lecturer and demonstrator for at least one meeting. The faculties of medical schools should and undoubtedly will be glad to co-operate in this important work.

EVERY member of the Indiana State Medical Association by this time should have received his manual containing instructions and suggestions concerning the periodic examinations of the apparently healthy as prepared by the committee of the A. M. A. appointed for the purpose. These pamphlets have been purchased by our State

Medical Association at considerable expense and they not only will prove helpful to each and every general physician but they should be preserved carefully for future use.

SOME medical men are very opinionated and have little respect for the opinions of others. Such men are due for a hard fall and generally get it. Usually there are plenty of confreres standing on the sidelines who would like to applaud but are charitable enough to have respect for the feelings of the down-trodden even though the penalty is deserved. It is all right to go ahead when you know you are right, but there is no excuse in brutally trampling on the other fellow in the course of your progress.

ONLY thirty-six Indiana doctors registered at the Dallas session of the A. M. A., and three of those were the accredited delegates. We are rather surprised at this poor showing, as Indiana generally is well represented in proportion to fellowship in the Association. We can only account for it on the ground that there was a mistaken notion in the minds of many doctors that Dallas could not provide accommodations for all those who usually attend an A. M. A. session. In reality Dallas did far better than many larger cities that have attempted to entertain the Association.

WE desire to call the attention of the members of our association to the fact that the revised constitution and by-laws which was offered at the Marion session and not adopted was prepared at the expense of much time and labor by Dr. George F. Keiper, deceased, and is in conformity with the uniform constitution and by-laws for state associations that has been prepared and recommended by the A. M. A. We sincerely hope that this year there will be no foolishness about adopting the new constitution and by-laws in its entirety and that there will be no postponement of action in consequence of one or two minor changes that can be made at any time.

SOME of the newspapers are carrying an article, known as "boiler plate stuff," containing a lurid tale concerning plastic and corrective surgery upon animals, and the statement is made that some of the veterinarians have furnished dogs, horses and cows with artificial legs, artificial teeth, and even artificial eyes. The article even goes so far as to state that eyes have been grafted into the orbits of dogs and lost vision restored in that way. It might be well if newspaper editors would verify the statements made in some of the syndicated articles that are furnished for reproduction in newspapers largely circulating in the rural communities.

AN Illinois optometrist publicly announces that brown eyes are better than blue ones because they

last longer. There is absolutely no evidence to prove this statement. The optometrists very glibly pass out to the public a good many opinions concerning eyes and their care that are worthless, and some of the advice is positively detrimental to the best interests of the public. However, this is one way to get the ear of the public and it is propaganda that leads many school boards to appoint opticians, jewelers or plain spectacle peddlers to examine the eyes of school children. Verily, the medical profession has been asleep or it would have made a strenuous effort to offset a good deal of the vicious teaching of medical pretenders.

IF we are going to have any constructive medical legislation at the next session of our state legislature, it will be necessary for doctors to take an interest in politics. No matter what political party you are affiliated with, refuse to give support to candidates for the legislature who are known to be opposed to progressive medical legislation or are in sympathy with the members of cults and medical pretenders. It is the duty of the legislative committee of every county medical society in the state to send the right kind of men to the legislature. The most effective work is done at the primaries. Aim to pick, as legislative timber, men who will uphold medical standards and who will take an interest in safeguarding the public health as well as promoting wise medical legislation.

WEST BADEN is an ideal place for a medical convention and we are pleased that the Indiana State Medical Association will go there for this year's session. All of the activities of the Association can be given under one roof and the accommodations for the individual members and for the various meetings are not only ample but unusual from the fact that they are divorced from the noise and commotion incident to sessions held in our larger cities of the state. Furthermore, West Baden offers unusual opportunities for social and recreational diversion and it is hoped that the members of the Association will take advantage of the opportunities for golf, tennis, swimming, horseback riding, hiking, and the possibilities of increasing social intercourse and acquaintanceship with one another.

A PRACTICAL demonstration of periodic health examination of apparently healthy persons was given on two different occasions at the Dallas session of the A. M. A. Those who attended the demonstration profited greatly and it is hoped that such demonstrations may be duplicated before every county medical society in the country. In fact, we think it is the duty of all county medical society officers to arrange for such a demonstration in the near future in the hope that all medical men will become familiar with the manner

of doing a complete and thorough examination of the apparently well so that the public, already being "sold" upon the proposition, will be in a position to appreciate what the regular medical profession has to offer in the way of aids to the conservation of health.

WE have received an inquiry from an advertising agency concerning data relative to the more cooling effects of lemonade as compared to the other soft drinks, and the admission is made that the information is on behalf of the California Fruit Growers Exchange. We see no reason for believing that lemonade is more cooling than other drinks, even though more agreeable to many people, but why go so far out of the way for a selling argument when the medical profession almost as a unit is urging the daily use of citrus fruits as a part of a healthy dietary regime? The apple growers have made the most of the old saying, "an apple a day keeps the doctor away," but the doctors, while not deprecating the use of apples, are insisting that oranges, lemons and grapefruit can not be surpassed as a health giving addition to the daily dietary.

EVERY member of the Indiana State Medical Association has received a copy of the manual of suggestions for health examinations. These manuals have been purchased by the Association and it is hoped that every member who receives a copy will read it carefully and file for future reference. The committee that prepared the manual was composed of fellows of the Association of the highest professional standing, and the work required a great deal of time but eventually received the critical study and approval of every member of the committee. Therefore, the manual should receive a cordial reception at the hands of the profession and the movement to promote periodic examinations of apparently healthy persons should go forward without delay, and in full accordance with the suggestions that have been offered.

REPRESENTATIVES of a number of cults and opponents of regular medicine had a meeting in Indianapolis a few weeks ago for the purpose of laying plans to get the legislature to pass a law permitting drugless healers to practice without disturbance. They have the money to carry on an aggressive campaign and unless something is done to offset their work it is not at all doubtful as to the outcome of such a move. Therefore, it is necessary for members of the medical profession to put forth every effort to acquaint our legislators with the dangers of permitting anyone to destroy our health laws and impede the progress of scientific medicine. Of special importance is the necessity of discussing the subject purely on its merits and all discussion should be free from personali-

ties. Objection to recognition of the cults must be based on the interests of public health and not of the private physician.

THE diabetic generally is considered a poor surgical risk, yet during the last three years in the Mayo clinic operations have been performed regardless of the presence of diabetes on the assumption that the diabetes, if it is properly controlled, will not increase the risk of operation. Thus 667 operations of the major type were performed in 497 cases of diabetes, and with little increase in the difficulties or complications that ordinarily occur in such operations. The patients are treated both before and after operation in the medical service and no opportunity is given for the interruption of the precise diet and accurate administration of insulin that should precede and follow operation. The danger of acidosis can be practically eliminated by proper treatment with insulin though this treatment does not replace other measures, the value of which was proved before insulin was available.

"BUY ON CREDIT" seems to be greatly overdone and it is only a question of time when our mercantile and financial interests will be facing a crisis. Everyone is urged to buy almost everything under the sun on credit, and in consequence a very large percentage of our people are living beyond their means in efforts to maintain false standards and there must come a day of reckoning. However, the object of this note is to call attention to a new phase of the credit proposition which seems to have affected some of the advertising quacks and medical pretenders. We have just heard of an advertisement that reads, "Obtain your health on credit and no money down." We suppose the next thing we will see is, "Have your tonsils out on credit—one dollar down and one dollar a month," or perhaps some ambitious surgeon, without the pale of ethical medical societies, will announce publicly that he takes appendices out on credit.

A PARTY of Texas business men were stopped at the Mexican border and told that before being permitted to enter Mexico they either would have to submit to vaccination against smallpox or produce evidence of successful vaccination within recent years. A week or ten days later a large party of medical men and their wives who went on a sightseeing trip into Mexico following attendance at the Dallas session of the American Medical Association, were advised in advance that all formality attendant upon crossing the border would be dispensed with, and that no vaccination or proof of vaccination would be required of any member of the party. We might, with perfect propriety, ask why such discrimination was made. What is sauce for the goose should be sauce for

the gander. However, we do wish to compliment the public health officials of Mexico upon their stand with reference to the value of vaccination as a preventive of smallpox.

EVERY time a doctor is delinquent in the payment of his dues to the A. M. A. it costs the Association about one dollar to restore the member to good standing, and this expense is due to the inexcusable carelessness and thoughtlessness on the part of doctors who could but do not pay their dues on time. We have suggested that these careless doctors be penalized by making them pay the expense occasioned by their delinquency, and we think the suggestion is a good one to be followed in our State Association. For instance, our by-laws should be amended so that dues that are not paid on or before February 1 shall not only be considered as delinquent but the payment of an extra dollar should be exacted before the member is reinstated. We never will get anywhere by coaxing a lot of careless doctors to do what they should do without undue urging on our part, but we firmly believe that they can be stimulated to better effort when they realize that their negligence is going to cost them some real money.

IN talking with a prominent member and ex-officer of our State Medical Association concerning the advisability of disciplining or penalizing members who do not pay their dues on time, we were surprised to find him opposed to publication in *THE JOURNAL* of the names of the delinquents as proposed by several county medical society secretaries. Upon investigation we found that this very member, an ex-officer of the Association, not only is delinquent at this time but regularly is constitutionally delinquent in almost everything else. No wonder he objects to discipline but it would give us a real joy to print his name in capital letters as one of the doctors who is so negligent of his duty to himself and to his profession that he ignores innumerable requests for the small amount required for medical society dues and thus puts a confrere, the secretary of the county medical society, to needless and unnecessary time, effort and expense, to say nothing of placing himself in a bad light.

At last the *Journal of the A. M. A.* begins to recognize that there is such a threatening evil as state medicine, and we are glad that our friends in Chicago have had reason to see the handwriting on the wall. When prominent members of our profession, teachers in our large institutions, honored in our medical societies, and perhaps financially independent, go off on a tangent by publicly urging the creation of enterprises and the following of policies that infringe upon the

private practice of medicine and place the sick and suffering under the paternalistic care of the state, it is time to speak out in open meeting. We therefore are quite pleased to know that the *Journal of the A. M. A.* has taken exceptions to some of the statements made by Dr. Richard Cabot in a paper printed in the "Survey" and widely distributed from New York by a concern, the nature of which is well known. As a matter of fact, medical men are to blame for most of the troubles that arise through the state medicine activities, and if ever state medicine becomes more of a reality than it is at the present time it will be the fault of the medical profession and not those outside.

THE following Indiana physicians registered at the Dallas session of the American Medical Association: Albert E. Bulson, Fort Wayne; William C. Caldwell, Evansville; W. R. Cleveland, Evansville; R. E. Cole, Muncie; F. W. Cregor, Indianapolis; George V. Cring, Portland; D. J. Cummings, Brownstown; S. C. Darroch, Cayuga; C. W. Dowden, West Baden; Thos. J. Dugan, Indianapolis; Wallace C. Dyer, Evansville; G. G. Eckhart, Marion; L. Ensminger, Indianapolis; L. H. Eshelman, Marion; Henry W. Gante, Anderson; Mr. Thomas A. Hendricks, Indianapolis; Thomas C. Hood, Indianapolis; William H. Kennedy, Indianapolis; Edgar F. Kiser, Indianapolis; Edward H. Kruse, Fort Wayne; P. E. McCown, Indianapolis; F. A. Malmstone, Griffith; Robert M. Moore, Indianapolis; Herman G. Morgan, Indianapolis; Otis B. Nesbit, Gary; Robert F. Price, Terre Haute; Thomas F. Reitz, Evansville; David Ross, Indianapolis; H. C. Ruddick, Evansville; James M. Smith, Indianapolis; Phil Warten, Evansville; J. H. Warvel, Indianapolis; H. C. Weiss, Evansville; Frederick B. Wishard, Anderson; Homer Woolery, Bloomington; L. G. Zerfas, Indianapolis.

DR. W. D. HAGGARD, retiring president of the A. M. A., stated a fact when he reminded his hearers at the Dallas session of the A. M. A. that the average medical man takes little interest in examining the well, even if prepared to make a thorough, competent and careful physical examination. Periodic health examinations never will accomplish the best results until medical men take the matter seriously and prepare themselves to make a thorough and competent examination of all persons seemingly well but who wish to be examined and thus take an inventory of physical conditions. As Dr. Haggard has said, if the subject is presented properly and the work intelligently and conscientiously executed, it will be the most far-reaching and beneficent step that has been taken by forward looking medical men in this country. The most deadly blow that the recognized medical profession can give in its

solidarity to every type of irregularity is to examine patients so thoroughly and so carefully and efficiently that they will recognize the difference between competency and the lack of ability and equipment to make an intelligent and complete examination.

THE board of trustees of the A. M. A. has turned down a proposition from the Gorgas Memorial Institute of Tropical Preventive Medicine whereby the A. M. A. was to become a sort of subsidiary co-partner in the activities of the Gorgas Memorial movement. This is entirely in keeping with the rather generally accepted idea that the A. M. A. should be awarded the leadership in all great movements that have to do with public health endeavor. As a matter of fact, the editor of *The Journal* is a fellow of the American College of Surgeons but is not in sympathy with the tendency on the part of a few ring leaders in the College to attempt to run or control everything pertaining to the practice of medicine in any of its phases or to improve public health conditions. Even the policies controlling the College are fixed by a few ring leaders and the rank and file have little or no voice in them. Star chamber methods are the rule rather than the exception. The Gorgas Memorial is all right in its aims and objects, but we are very glad that the Board of Trustees of the A. M. A. has had the nerve to put its stamp of disapproval upon any effort to make the American Medical Association the tail to the American College of Surgeons' kite.

A RUMOR has come to us that an effort will be put forth to lower the dues of the Indiana State Medical Association. Isn't that a fine way to aid progress? As a matter of fact, with all of the increasing activities of the Association and the splendid results that are being accomplished in behalf of the medical men of the state individually and collectively, it would be more sensible to talk about raising the dues for the purpose of broadening the activities and benefits accompanying them. Aside from all of this, isn't it just a little small on the part of any doctor to object to the payment of seven dollars a year to the Indiana State Medical Association? The members of practically every other professional, fraternal and business organization in existence pay as much, and usually more, and most of the other organizations give little in return for the dues paid. However, when it comes to doing anything to help the individual doctor a good many members of our medical societies can be ranked as "hard boiled." The Indiana State Medical Association always has been well managed and has given splendid returns for every dollar paid in as dues, and at the present time is doing more constructive work and accomplishing more for the profession in a variety of ways than ever before. It would be the height of

folly to curtail that work by cutting down on the income from dues.

WE hope that the members of our Association will remember that the American Medical Association maintains a bureau of investigation which can furnish information concerning proprietary medicines, quack doctors, and even medical men who desire to obtain membership in our county medical societies. In fact, every licensed physician in the United States is duly catalogued at the A. M. A., and his pedigree, whether good or bad, is a matter of record. Therefore, the man who is a little off color probably has all his sins recorded in Chicago, and the young doctor who does not desire to have his medical sins come up to taunt him later in life through the bureau of investigation had better walk the straight and narrow path rather religiously. However, the principal object of this comment is to call attention to the fact that, as stated by the secretary of the A. M. A., it would be greatly to the interest of clean, organized medicine, or officers of constituent state associations, to obtain from the bureau of investigation information relative to the individual physicians who may apply for or be solicited for membership. There are also a large number of circulars and pamphlets dealing with all phases of quackery and medical pretenders published by the bureau of investigation that may be secured by writing for them.

THE officials of the United States Public Health Service are stressing the point in periodicals and over the radio that the common drinking cup is responsible for conveying most of the preventable diseases. The paper cup manufacturers are taking advantage of this declaration by urging legislation that will compel the use of the sanitary paper cup in all public places where sterilization of drinking vessels is impossible or impracticable. However, irrespective of the commercialism that prompts this activity on the part of the paper cup manufacturers, the movement is deserving of support, as any thinking person will testify after observing the lack of even ordinary cleanliness practiced by soft drink parlors, lemonade stands, at conventions, county fairs, restaurants, cafeterias, theaters, soda fountains, and the almost universal use of glass or tin drinking cups in a variety of public places. It is quite true that in many states we have sanitary inspectors who are supposed to enforce laws and public health regulations concerning cleanliness in dispensing food and drink, but this puts too much responsibility upon the human element and, in consequence, there are too many places where sanitation or even ordinary cleanliness is not found at all or is merely spasmodic. The use of the sanitary paper drinking cup under compulsion offers a safeguard that will decrease the dangers from the transmission of diseases.

WE note that the chiropractors are having much difficulty in practicing in Texas where the medical practice law requires that all those who practice the healing art must meet certain qualifications which include a knowledge of all the fundamental branches of medicine and surgery. In Texas they believe in tarring every one with the same stick, which is quite the proper procedure. Furthermore, the Texas Board of Medical Registration and Examination seems bent upon enforcing the law, and the courts are upholding them in their endeavors. A Texas judge has made the point, which we have tried to emphasize here in Indiana, that it does not make any difference what kind of psychology, physical therapy, or drugging is employed in the treatment of disease, providing the one who is prescribing or treating the patient knows the body in health and is capable of making a diagnosis of pathological conditions. Let the chiropractors attempt to treat disease and abnormalities of every kind by mechanical manipulation if they so like, but first make the chiropractors study the fundamental branches of medicine and surgery according to the plan laid down by our best universities and recognized medical schools. The trouble of it is that if these chiropractors did know anything about the fundamental branches of medicine and surgery they wouldn't be chiropractors.

Next winter a lot of doctors will be complaining because unwise medical and public health legislation is threatened, and there will be a great hue and cry as to why there are so many antagonists of organized medicine. The reason is not hard to find. Right now there are numerous candidates for the legislature, and the question arises as to what the individual members of the medical profession are doing to prevent the nomination of undeserving aspirants for office, and what will be done from now until election to prevent such men from securing office. Incidentally, we would like to know just how much activity on the part of the chairmen of the county legislative committees of the Indiana State Medical Association has been brought about as the result of the prodding that has come from the legislative committee of the State Medical Association. It is well to remember that the opponents of scientific medicine, including the members of the pseudo medical cults, are active to a man, and the only reason under heavens why they have succeeded in the past is because the regular medical profession, individually and collectively, has been apathetic in the matter of opposing all that goes to bring about unwise medical and public health legislation. Many doctors fail even to attend the primaries, let alone doing any work to prevent the election of opponents of scientific medicine. It is high time that we shake off the political lethargy that has hampered us for a generation.

WHEN one thinks of the regions where moderate temperatures, clear air, and sunshiny days are the rule, one is inclined to be discontented if obliged to live in Indiana where it would seem we have an overabundance of wet weather, and dark, gloomy days. Then we suffer from the added effects of an air that is loaded with smoke, soot and noxious gases. We cannot control the changeable and disagreeable weather from which we suffer for many months, but it is possible to stop the practice of polluting the air with smoke and other impurities, and this matter deserves the serious attention of all municipalities. In the final analysis, we envy the person who can afford to live in a climate that is healthier and more agreeable. In all probability many of us are doomed to continue to live and die in Indiana, and there are worse places for an abode, but some consideration of the records of climatic conditions in a few other places on the face of the earth forces us to the admission that, all things being equal, if we had our choice we would not select Indiana or any other state in the middle west as a place for permanent abode. This is not disloyalty, but a recognition of the fact that we do have long and very disagreeable winters, with many and sudden changes of temperature, and a scarcity of the bright, clear, sunshiny days that make one feel that life is worth while.

THE Bureau of Publicity of our Association every week has been sending to the lay press an article on some phase of individual and community health, and these articles are growing in popularity as evidenced by the increasing number of newspapers that regularly publish everything sent out by the Bureau. In a recent article attention was called to the ambulance service of our cities which serve such a useful purpose in helping the sick and injured in an emergency. One sentence in the article ought to bear fruit and is as follows: "Every call for the ambulance shows how quickly the public's confidence in the cultist and health faddist fades away in any real emergency and how completely it places its reliance and faith in the trained and qualified medical man." The subject could be elaborated further by calling attention to the fact that every great catastrophe on land or on sea, and whether due to physical injury or the ravages of disease, brings forth the call for an educated and well-trained medical man, and never a peep is heard concerning Christian Scientists, osteopaths, chiropractors or any of the host of pseudo-medical pretenders. Even the members of the cults themselves call lustily for the help that can be given by trained medical men in times of great stress, for they realize that they are helpless in the hands of the members of their own cults. This should be food for reflection for those who would aid in the maintenance of cults.

MUCH complaint is made concerning the disagreement of doctors, but it should be remembered that there is just as much disagreement among those following other professions and vocations of every kind. However, we must realize that there is altogether too much inconsistent and unnecessary disagreement among doctors, and too much petty jealousy and fault finding among men who should, for the good of themselves and the profession as a whole, be co-operating in creating a spirit of friendship and helpfulness among themselves. A correspondent writes us that he lives in a community where the doctors seem to take pleasure in opposing each other in every activity, not omitting the diagnosis of disease. He frankly remarks "If we medical men can not agree, and can not get along in harmony, how can we expect the public to have confidence in us? Even the chiropractors, incompetent though they may be, stick together and have friends in our societies and our lodges. It is because of their unity of action and feeling, and their activity in looking after their own interests in legislative halls as well as in their individual communities, that has made them powerful antagonists, and encouraged for them a certain amount of popularity from the public." That our correspondent says is quite true, and it is time for the members of the regular medical profession to get together in more ways than one, and quit knocking each other and clinging to the practice "Let George do it."

THE story is told, and very possibly it is true, that a patient consulted a doctor, swollen up with his self-importance, concerning a sore throat, and the following dialogue took place:

Doctor: "Your throat is sore from the effect of two very badly diseased tonsils which should be removed."

Patient: "But, doctor, I have no tonsils. They have been removed."

Doctor: "Whoever removed them did a rotten job of it and you will have to have the work done over."

Patient: "But, doctor, you were the one who removed the tonsils!"

Doctor: "In that case we will have to look elsewhere for the focus of infection."

Now comes the story, corroborated by a very intelligent layman, who says that an Indiana surgeon, notorious in the medical profession as a commercial surgeon and never failing to find something operable in every case which comes to his attention, insisted that the patient consulting him was suffering from a diseased appendix which should be removed, and would not listen to a deviation in the diagnosis but declared that he would have nothing to do with the case unless permitted to remove the appendix at once. He was somewhat chagrined when advised that his persistence in demanding that he be permitted to

operate was rather dangerous advice when given to a patient from whom he had removed the appendix a few years previously.

Thank kind fortune the majority of the real surgeons of Indiana occupy a plane that is above that of the rank commercialist who exacts the pound of flesh at every opportunity. They may have a hard task in competing with the commercial surgeon but they at least have the satisfaction of keeping clear consciences and at all times the respect of their confreres.

COMPLAINT has been made that a good many out-of-state men have been brought into Indiana to read papers or hold clinics before county and district medical societies, and that the experiences have had a tendency to make local men adverse to either the presentation of papers or offering discussions, on the ground that they feel that they cannot compete with the outside talent. Now comes one of our prominent members with the statement that in at least three instances that have come to his notice, outside men have presented papers that were little more than compilations and that the statistics and experiences reported are exaggerated, and in one instance manufactured to suit the purposes of the essayist. We believe that any man who makes claims that cannot be substantiated deserves exposure, and we are in favor of taking the stand of a deceased and highly respected member of the medical profession who, even when a house guest of a distinguished confrere in another city and given a week's opportunity for observation of cases in the wards and private rooms of several hospitals, declared in a medical convention that his host was lying both as to the number of cases operated within a specified time and the results secured from such operations. The plea was made that the obligation which goes with friendship and personal courtesies shown should not interfere with the promulgation of scientific truth, and for that reason the surgeon who openly lies about the number of specific operations that have been performed by him and the results secured therefrom does not deserve protection. What we need in our county and district medical societies is more discussion of scientific subjects based upon facts and a spirit of helpfulness to the medical profession to solve the problems that confront us, and we should discourage the presentation of papers and discussions that advertise and eulogize the essayist or discussant.

UNDER the title "What Shall I Believe?" the New York State Department of Health issues a statement concerning conflicting opinions on health matters and cites an instance where a city school medical inspector, a city health officer, and a representative of the New York State Health Department, in a public address, advised that all children under ten years of age be given toxin

antitoxin to protect them against diphtheria. They contended that it was a simple and safe procedure and if all children could thus be protected, diphtheria, so often fatal to children, could be wiped out. A day or two later, a local newspaper published an article sent out by an organization the purpose of which is to oppose vaccination, the use of antitoxin, and everything which it calls "Compulsory Medicine." The article goes on to say that toxin antitoxin is a powerful poison, its use is dangerous and unnecessary, and the health departments are foisting it upon an unsuspecting public for the benefit of the medical profession. Naturally, such a conflict of opinion arouses comment in the minds of many lay persons, and the secretary of the New York State Board of Health advises the public not to jump at conclusions but to inquire into the sources of opinions and look for the motives back of them, and he concludes with the following sane advice: "The physicians, including the health officer, in any community, are men of standing, with reputations to maintain. As a class, physicians are conservative. There is much more money for most of them in treating disease than in preventing it. When they endorse a health measure it is because they believe in it. The State Health Department is by no means infallible, but it has no 'axe to grind.' Its sole purpose is the protection of the public health. To retain public confidence it is bound to be conservative. It could not afford to stand back of an important measure—such, for example, as the administration of toxin antitoxin—until its value and safety had been thoroughly established. When there is an apparent conflict in the evidence for and against a measure recommended by health departments and physicians, turn on the searchlight of common sense and reason. 'Truth crushed to earth shall rise again,' but many unfortunate things may happen while it is down."

THE Indiana State Medical Association has a membership of nearly three thousand, only about one-half of whom subscribe for *The Journal of the A. M. A.* In consideration of the fact that *The Journal of the A. M. A.* is the largest and by all odds the best medical journal in the world, and that fellowship in the A. M. A. carries with it a complimentary copy of *The Journal of the A. M. A.*, we fail to understand how any doctor who makes the slightest pretense of being progressive and up-to-date can afford to stay out of the A. M. A. or deny himself the advantages of reading that Association's wonderful journal. As a mere side issue we call attention to the fact that nearly seven hundred doctors, not fellows of the A. M. A., presumably not even members of our state medical association, subscribe for *The Journal of the A. M. A.* Furthermore, as indicating their unprogressiveness, only fifty-one per cent of the total number of registered phy-

sicians in Indiana subscribe for *The Journal of the A. M. A.*, whereas practically every one of the states comparable with Indiana show a percentage as much higher. We hate to admit that Indiana is at all behind in progressiveness, but the facts seem to indicate that on the whole we are not keeping up the pace set by surrounding states and we especially urge the members of our State Association to brace up by becoming actively identified with the A. M. A. and subscribing for its invaluable journal. *Hygeia* has a total subscription of 1,401 in Indiana, of which number 590 go to physicians and 811 to members of the laity. This isn't a very good record. In the first place, every member of the Indiana State Medical Association ought to subscribe for *Hygeia* and place the copy on the reception room table of his office. That alone would mean a subscription of nearly three thousand for Indiana, or double the total circulation of *Hygeia* in this state. However, every member of our State Association ought to see that one or more copies of *Hygeia* are subscribed for by members of the laity, and especially that *Hygeia* be placed in public reading rooms everywhere, including libraries, churches, fraternal organizations, etc. A little effort on the part of the medical profession would greatly extend the circulation of *Hygeia* and indirectly it would be a wonderful aid in the promulgation of rational ideas concerning health and how to keep it and the fallacies of following the propaganda of the cultists and faddists.

BECAUSE of the high ideals and ethics on which the medical profession is founded, it has been considered more or less undignified for the medical men to pay any attention to the admitted economic ills which have followed his calling. THE JOURNAL long has recognized, and has preached the doctrine which considers the practice of medicine as first, a humanitarian profession; and second, a business from which the medical man makes his living. In the past the medical man has paid too little attention to the business side of the practice of medicine, and in consequence there are thousands of instances where the well trained, highly ethical doctor, always displaying the milk of human kindness, has spent a life time in the practice of his profession and died poor, oftentimes leaving his family dependent as a direct result of not giving sufficient attention to his own financial welfare.

It is an established fact that the percentage of losses from bad accounts is far greater in the medical profession than any other line of endeavor. Also that the payment of accounts, even in cases where credit is warranted, is slow and beyond all reason. Let us not deceive ourselves that our situation in these respects is improving. As a matter of fact it is getting worse and becomes a greater problem daily.

In Indianapolis a bureau has been organized to serve the business or economic side of the profession. The primary purpose of this organization is to guide and advise the doctor in the extension of credit to individuals, to assist in the collection of accounts, and to educate the public that a medical bill requires the same prompt attention as other obligations. This bureau proposes to act as a service agency for the profession, incorporating such features of service from time to time that the members may suggest which may be best handled by such a lay organization. Their plan of operation, which is very complete and in keeping with the ideals and ethics of the profession, has been indorsed by many of the foremost physicians and surgeons of Indianapolis, and it is hoped that others will lend it their support and co-operation. This bureau is composed of responsible Indianapolis business men and headed by Frank G. Laird, a man who has had national experience in the organization and operation of credit and service bureaus. This new organization has established offices in the Hume-Mansur building in Indianapolis, and is known as the Medical Arts Credit Bureau.

A REPRESENTATIVE of the Veterans Bureau secured permission to talk before the House of Delegates of the A. M. A. at the Dallas session concerning the attitude of the Bureau in caring for veterans of any of the wars whether the disability arose as a result of service or not. He pointed out that the Bureau does not make the law, but is complying with provisions made by Congress. However, as a concrete example of what is expected of the government through the activities of the Veterans Bureau, he cited the case of a soldier who perhaps contracted syphilis after the war, and later turned up with some of the various sequellae which incapacitates him and perhaps makes him a dependent upon the community in which he lives, where the question of how the disability arose is secondary to the known fact that the dependent served his country and his country expected that he would be taken care of in consequence of that service. The Bureau's representative also made a very telling point when he stated that it ill becomes the medical profession to complain about gratuitous medical and surgical services to the veterans of the late war when they themselves are responsible for the most shameful abuse of clinics and charitable institutions in every city and town of the United States by people perfectly able to pay for the services rendered, and who oftentimes are rated as wealthy. In fact, a great many of these surgeons and specialists who hold positions on the staffs of free clinics and charity hospitals lack the nerve to complain about the abuse of the charity rendered because they are afraid that they may lose their positions, or incur the enmity of the

uplifters who are interested in furnishing free service to many undeserving people. Laying aside the question of any compensation of any kind whatsoever for the members of the medical profession who are devoting so much of their time to gratuitous work, a great economic factor is deserving of consideration, and that pertains to the pauperizing of a horde of people who do not deserve such classification, and increasing the number of unworthy dependents who receive support at public expense. What applies to our free clinics and charitable hospitals applies equally to the clinics and hospitals maintained by the government, and because a man served in some capacity in any of our wars is no reason why he should be made the subject of undeserved bounty at the hands of the government. Already there is a growing number of able-bodied young men who, for their own good, would be better off if they went to work, and who have become government dependents because it was easy to fall into that classification. We believe that every ex-soldier of the United States who has any disability that can be traced to service for his country in time of war deserves a pension, and a liberal one, but we are once and for all time opposed to making all the rest of the soldiers dependents and members of the already too large army of shirkers in this country.

THE Council of Pharmacy and Chemistry of the A. M. A. has done a wonderful work in investigating for the medical profession concerning virtues and faults of proprietary medicines which physicians are importuned to use. However, the work of this body of trained men who labor untiringly and without remuneration in the cause of rational and scientific medicine deserves wider recognition and acceptance. It will receive this when physicians more generally recognize the fact that those who compose the Council have the needed specialized training to enable them, better than the average physician, to form a correct estimate of the many new medicaments appearing each year, as, for instance, when the chemist challenges the asserted composition of a medication because the formula is in woeful disagreement with chemical laws, or when the pharmacist recognizes a new "Danish iron compound" as the almost forgotten dialyzed iron, or when the pharmacologist notes that the supposed effects of a drug indicated by tracing were already perceptible before the administration of the drug was begun. During the year 1925 the Council has considered its usual quota of proprietary and nonproprietary substances. Of these about one-half were found acceptable for New and Non-official Remedies. A few were found not to come within the scope of this book. Less than one-fourth were found unacceptable and the remainder still are under consideration. Among the preparations that had to be rejected were "colloidal gold,"

an asserted cancer remedy; a dried yeast preparation offered as a diabetes remedy; a germanium dioxide preparation for use in anemia; liposan; a chaulmaogra oil soap solution for intravenous use against a host of conditions, and an assortment of complex, unscientific mixtures which certain firms still exploit and which, it is feared, an undue number of physicians continue to prescribe. New and Nonofficial Remedies, published annually, is the book in which the Council lists and describes medicinal products deemed worthy of recognition by the medical profession. The book is a veritable cyclopedia of proprietary medicines. The pamphlet known as "Useful Drugs" published by the Council is a concise but thorough and up-to-date discussion of the actions, uses and dosage of the more important drugs. The Council has brought about a revolution in the field of therapeutics which was thought impossible at the time its work was started twenty-one years ago. Much remains to be done, however, before drug therapy can be said to be placed on a thoroughly sound basis. To this end the constructive work of the Council must be continued with unabated vigor and determination. However, the success of its endeavors will depend less on the work done by the Council than on the support that is given by the rank and file of the medical profession. Support can be given most efficiently by physicians with fullest justice to themselves and their patients by confining their use of proprietary medicines to those that have been found acceptable for inclusion in *New and Nonofficial Remedies*, the official publication of the Council. Every member of the medical profession should, therefore, take the findings of the Council as his guide and pay little or no attention to the specious arguments of the manufacturers and exploiters of proprietary medicines whose opinions and judgment are often warped by commercial considerations or by findings that are not in keeping with established facts.

EVERY Indiana physician doing industrial work should be interested in the work of the Committee on Industrial and Civic Relations of the Indiana State Medical Association in efforts to secure just and reasonable compensation for all industrial work. Accordingly they will be interested in a form letter sent to county medical society secretaries concerning the necessity of establishing local fee schedules for the guidance of the industrial board. The letter concerning the matter is as follows:

1. Under the workman's compensation law of Indiana and the rules of the Industrial Board, fees at present are awarded to physicians doing industrial work on the following basis:

"The pecuniary liability of the employer for

medical, surgical, and hospital service herein required shall be limited to such charges as prevail in the same community for similar treatment of injured persons of a like standard of living when such treatment is paid for by the injured person."—Sect. 26, Acts. 1915, page 399.

2. From the questionnaire sent out last summer by your committee on Industrial and Civic Relations, the following facts developed in regard to a fee schedule in industrial cases:

(a) The schedule of physicians' fees made ten years ago for the guidance of the Industrial Board in settling disputed cases has become obsolete and is largely disregarded by the Board, as being no longer adequate as prices of all other services and commodities have greatly increased. Although this is true, some insurance carriers and employers would use this antiquated schedule in disputes with physicians where legitimate fees have been asked.

(b) The committee recommended at the 1925 state convention that no fee schedule should be made to *cover the entire state* but that *fees current in the locality where service is given should be paid, or fees current over the state charged by physicians of relative standing and experience should serve as a basis for charges made in industry.*

3. The Industrial Board at the present makes its awards not according to any schedule but according to local charges in each community.

As a result of these facts, your state committee on Industrial and Civic Relations suggests that it might be well for the physicians in each community to get together, talk over this matter, and agree upon a fee schedule for *their own communities.*

Your committee feels that it would be a marked advantage in settling disputes if each county would decide its set system of charges. The law as quoted in paragraph 1 infers that the local fee bill will be the one used in deciding disputes in compensation cases, and if the physicians in each locality can arrange such fee schedules among themselves, sending a copy to the chairman of the Industrial and Civic Relations Committee, it will help greatly in furthering the work of this committee and in settling any disputes that come before the board. Your committee is undertaking to act as arbitrator in some of these disputes between doctors and insurance carriers, and if your community has no fee schedule it will be difficult for the committee to give you the assistance it should like to render.

Please attend to this at once.

FRANK S. CROCKETT, Chairman.

Address: Schultz Building,
Lafayette, Indiana.

DEATHS

MILTON P. TOLLIVER, M.D., of Elnora, died March 23. Dr. Tolliver was seventy-eight years of age.

SYDNEY G. WHITE, M.D., of Warsaw, died April 10. Dr. White graduated from the Baltimore Medical College, Maryland, in 1893.

T. J. MCMURTY, M.D., of Boxley, Ind., died March 25. Dr. McMurty graduated from the Indiana Medical College, Indianapolis, in 1875.

JOHN S. LYTLE, M.D., of Dunkirk, died March 27, aged sixty-six years. Dr. Lytle graduated from the University of Edinburgh, Scotland, in 1880.

M. W. SPARKS, M.D., (colored) of Terre Haute, died March 31. Dr. Sparks graduated from the Louisville National Medical College, Louisville, Ky., in 1896.

A. A. WILLIAMSON, M.D., of Rockville, Ind., died April 4, aged sixty-five years. Dr. Williamson graduated from the Medical College of Indiana, Indianapolis, in 1898.

J. H. HANAHAN, M.D., of Needham, Ind., died March 22, aged sixty-three years. Dr. Hanahan was a graduate of the Kentucky School of Medicine, Louisville, in 1893.

JOHN SCHILLING, M.D., of Fort Wayne, died March 20, aged sixty-two years. Dr. Schilling graduated from the St. Louis College of Physicians and Surgeons in 1884, and was a member of the Fort Wayne Medical Society, the Indiana State Medical Association and the American Medical Association.

LANTA W. FORD, M.D., of Syracuse, died April 7, aged fifty-two years. Dr. Ford graduated from the Central College of P. and S., Indianapolis, in 1901. He was a member of the Kosciusko County Medical Society, the Indiana State Medical Association and the American Medical Association.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

DR. AND MRS. B. S. SHEFFER, of St. Joe, Indiana, celebrated their golden wedding anniversary at their home March 14.

THE Jackson County Medical Society held a

meeting at Seymour, March 3. Dr. Carl McCaskey, of Indianapolis, presented a paper on "Diseases of the Ear."

DR. A. L. MARSHALL, of Indianapolis, has returned from two weeks spent in New York Eye Clinics.

THE American Association of Hospital Social Workers will hold its annual meeting at Cleveland, May 25 to June 2. Headquarters will be at the Hotel Winton.

THE President has reappointed Major-General M. W. Ireland as surgeon-general of the United States Army, and the nomination was confirmed by the Senate, April 8.

THE Elkhart County Medical Society held a meeting, April 1, at Goshen. There was an afternoon and evening session, with dinner at the Hotel Alderman at 6 o'clock.

THE Montgomery County Medical Society held a meeting at the Crawford Hotel, Crawfordsville, March 25. Dr. George Bond, of Indianapolis, presented a paper on "Heart Disease."

DR. D. O. KEARBY, of Indianapolis, addressed the meeting of the Muncie Academy of Medicine, held March 26. His subject was "Some of the Commoner Diseases of the Ear, Nose and Throat."

THE Northeastern Indiana Academy of Medicine held a meeting at the Country Club, Garrett, Ind., April 22. Dr. Fred Douglas, of Toledo, Ohio, presented a paper on "Gall Bladder Diseases."

AT the regular monthly meeting of the Delaware Blackford Medical Society held April 2, Dr. Robert Moore, of Indianapolis, presented a paper on "Common Phases in the Treatment of Heart Diseases."

It has been reported that an order was issued, March 27, by the United States Public Health Service to the effect that all persons leaving the Pacific Coast for Alaska and Hawaii must be vaccinated against smallpox.

THE Grant County Medical Society and its guests held a meeting at the Spencer Hotel, Marion, on April 27. Dr. Hugh T. Patrick, of Chicago, presented a paper, his subject being "Remarks on the Nature and Treatment of Psycho-Neuroses."

DR. B. R. KIRKLIN has announced his removal from Muncie, Indiana, to Rochester, Minnesota, where he has accepted a position at the Mayo Clinic. Dr. Carl S. Oakman, formerly of Detroit, and Ann Arbor, Michigan, has taken over Dr. Kirklin's work in Muncie.

THE National Committee for the Prevention of Blindness has announced that the Leslie Dana medal for the most outstanding achievement in the prevention of blindness and the saving of sight will be awarded this year to Miss Louisa Lee Schuyler, of New York City.

IN addition to the examination held at Dallas on April 19, and at San Francisco on April 27, another examination will be held at the Otolaryngological Clinic, Royal Victoria Hospital, Montreal, on Tuesday, June 1. Information may be secured from the secretary, Dr. H. W. Loeb, 1402 South Grand boulevard, St. Louis, Missouri.

A TUBERCULOSIS institute for physicians was held for five days, beginning May 3, in Indianapolis. This short course was conducted by the Indiana Tuberculosis Association, and was affiliated with Indiana University. The institute was in charge of Dr. Alfred Henry, of Indianapolis, and he was assisted by specialists from outside of the state.

THERE will be a joint meeting of the Central Illinois Radiological Society and the Chicago Roentgen Society, at Champaign, Illinois, on Tuesday, May 18, during the annual convention of the Illinois State Medical Society. A program of the meeting can be obtained from Harold Swanberg, M.D., president, Central Illinois Radiological Society, 731 Hampshire street, Quincy, Illinois.

THE United States Civil Service Commission announces open competitive examinations for junior medical officer, assistant medical officer, associate medical officer, medical officer, and senior medical officer. Applications will be rated as received until June 30, 1926. Applicants should apply for Forms 2118 and 2398, stating title of the examination desired, to the Civil Service Commission, Washington, D. C.

A RESEARCH to discover the cause and a cure for the common cold, which was pronounced one of the greatest scourges of humanity, was undertaken by the American Drug Manufacturers' Association at its convention in New York City recently, when an offer to finance such a research was made by Francis P. Garvan, president of the Chemical Foundation. Reporting good progress in the fight to establish the chemical industry in this country in competition with Germany in the fields which Germany formerly controlled, Mr. Garvan branched into the subject of the common cold, which he said was one of the greatest causes of mortality and economic loss, in spite of the

fact that it is usually regarded as of slight importance. The American Drug Manufacturers' Association voted to co-operate with the Chemical Foundation in seeking a method to check the ravages of colds.

ALPHA OMEGA ALPHA has announced the election to membership of ten seniors and five juniors from the Indiana University School of Medicine. This high honor fraternity occupies a similar position in medical scholarship recognition that Phi Beta Kappa does in the academic world. Seniors who have been honored by admission are: Wendell W. Ayres, Upland; Frank B. Wakeman, Valparaiso; Rubin H. Stiehm, Johnson Creek, Wis.; George P. Robb, Bloomington; James M. Himler, Indianapolis; James D. George, Indianapolis; Eugene F. Boggs, Salem; Walter A. Laudeman, Indianapolis; J. Melvin Masters, Indianapolis; Clarence B. Hills, Berkeley, Cal. Election of members of the junior class is a marked honor, according to officers of the fraternity. Juniors who were selected for this honor because of marked ability and promise are: Edgar J. Hunt, Terre Haute; Charles Berns, Cleveland, O.; Leonard L. Nesbit, Princeton; Walter S. Fisher, LaFontaine, and Lester H. Quinn, Flora.

The following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Cutter Laboratories:

Typhoid-Paratyphoid Prophylactic.

Efficiency Products Co.:

Hoffman's Non-Nutritive Nut Flour.

Mead, Johnson & Co.:

Mead's Powdered Lactic Acid Milk (Cultured).

Mead's Powdered Lactic Acid Milk (Acidified with Lactic Acid U.S.P.).

H. K. Mulford Co.:

Carbon Tetrachloride-Mulford—

Capsules Carbon Tetrachloride-Mulford, 0.3 cc.

Capsules Carbon Tetrachloride-Mulford, 1 cc.

Capsules Carbon Tetrachloride-Mulford, 3 cc.

Parke, Davis & Co.:

Parke, Davis & Co.'s Standardized Cod Liver Oil.

Squibb & Sons:

Scarlet Fever Streptococcus Antitoxin-Squibb for the Blanching Test, 1 cc. vials.

Swan-Meyers Co.:

Concentrated Pollen Extracts-Swan-Meyers, 2 cc. vials; capillary tubes.

Change of Agency—Cryogenine, formerly distributed by A. Lumiere Laboratories, is now distributed by the Gallia Laboratories, Inc. The Council has continued the acceptance of Cryogenine under the new distributor.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

March 24, 1926.

Meeting called to order at 5 p. m.

Present: S. E. Earp, M. D., and Thomas A. Hendricks, executive secretary.

As no quorum was present, the meeting will be considered as an informal conference.

The minutes of the meeting held March 17 were read, corrected and approved.

The release on Spring Fever read, corrected and approved for publication on Monday, March 29.

The following requests were made for speakers:

April 2, Garrett, Wesley Brotherhood Bible Class.

April 2, Fayette County Medical Society, speaker on "Periodic Health Examinations."

May 13, Kiwanis Club at Orleans, Indiana.

May 19, Third district meeting at West Baden, Ind. Speaker desired to present surgical or medical subject.

A letter was received from the Councilor of the Sixth district.

A letter was received from the Councilor of the Twelfth district.

Speaking date on March 30 filled. This is a joint meeting of the Dearborn-Ohio County Medical Society and Kiwanis Club.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole March 31, 1926

S. E. EARP, M. D.,
Acting Chairman.
THOMAS A. HENDRICKS,
Secretary.

BUREAU OF PUBLICITY

March 31, 1926.

Meeting called to order at 5 p. m.

Present: S. E. Earp, M. D.; Murray N. Hadley, M. D., and Thomas A. Hendricks, executive secretary.

The minutes of the informal conference of the Bureau held March 24, read and approved.

The release on "When the Ambulance Siren Sounds" read, corrected and approved for publication on Monday, April 5.

The following speaking dates have been filled:

April 1, Clark County Medical Society, Jeffersonville. Periodic health examination demonstration.

April 2, Garrett, Wesley Bible Brotherhood Class. Talk before lay audience.

April 2, Fayette county, Connersville. Periodic health examination demonstration before the Fayette County Medical Society.

May 13, Kiwanis Club at Orleans. Talk to laymen.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole April 7, 1926.

S. E. EARP, M. D.,
Acting Chairman.
THOMAS A. HENDRICKS,
Secretary.

BUREAU OF PUBLICITY

April 7, 1926.

Meeting called to order at 5 p. m.

Present: S. E. Earp, M. D.; Murray N. Hadley, M. D., and Thomas A. Hendricks, executive secretary.

Minutes of the meeting held March 31, read, corrected and approved.

The following bills were approved for payment:

Hume-Mansur Company, rent and electricity.....	\$ 2.00
Western Union Telegraph Co.....	1.28
American Linen Supply Co.....	1.60
American Medical Association.....	.90
Central Press Clipping Service.....	8.04
Dolbey & Van Ausdall, stencils.....	4.00
Kautz Stationery Co.....	.50
Bailey Office Supply, paper.....	11.40
Jas. H. Stygall, M. D., expenses.....	16.62
American Medical Association, health examination manuals	269.10

Total\$315.44

The release "Anemia" read and approved for publication Monday, April 12.

Report received from Kiwanis Club meeting at Lawrenceburg.

Report received from periodic health examination demonstrations given before the Clark County Medical Society and the Fayette County Medical Society.

Request for speaker for Kiwanis Club at Huntingburg received.

Speaking engagement filled for the Kiwanis Club at Orleans, Ind., May 13.

Copy prepared for radio talk from station WFBM. Subject of talk will be "Periodic Health Examination."

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole, April 14, 1926.

S. E. EARP, M. D.,
Acting Chairman.
THOMAS A. HENDRICKS,
Secretary.

LAKE COUNTY MEDICAL SOCIETY

One of the most active societies of the whole state association is the Lake County Medical Society, and too much credit cannot be given to the splendid work of W. E. Nichols, M.D., of Hammond, Indiana, the secretary-treasurer for the county society. Dr. Nichols reported at the end of March that all physicians eligible to membership in the county society have paid up except eight. These included one physician from Hammond, one from Indiana Harbor, two from Crown Point, and four from Gary, East Chicago heads the honor roll for Lake county, as every single one of its eleven ethical practicing physicians is paid up for the first time in many years.

Dr. Nichols writes, "We have built the society up to a place where it is worth any medical man's money and time to belong to it, and he needs the membership in the society more than the society needs any individual member . . . I am proud to say that I believe Lake County Medical Society is the best society in the state. We do not have a 100 per cent attendance at every meeting, but that cannot prevail in so large a county with members so scattered, but we do have 100 per cent programs and discussions, and every man who has attended this last year knows that he misses a good meeting every time he is not on hand. The society had 101 members in 1924, 148 in 1925, and will go over the top with 160 by the end of this year. If we would take in all who would come in who are now located in the county we could make 180 or more, but we are looking into each man's qualifications carefully before he is admitted to our society."

The activities of the Lake County Medical Society give the other county societies in the state something to shoot at.

THOMAS A. HENDRICKS,
Executive Secretary.

ABSTRACTS

ORIFICIAL SURGERY

Foreigners, with their somewhat older civilization, are inclined to view with merriment the development in this land of the free of the numerous peculiar doctrines of healing which appear on the medical horizon from time to time. The *British Medical Journal* views with well justified complacency the fact that the people of Great Britain "are slow to assimilate new ideas," and cites the "comparative indifference with which the teaching of those two great schools of American thought, chiropractic and osteopathy," have been received by the British medical profession. In its current issue, the British publication becomes hilarious again at "the determined efforts of America to effect the moral uplift of mankind." It would seem that the School of Orificial Surgery of Chicago has suddenly become apparent on the British scene, and that the British editors have been having a most enjoyable time in scanning its circular. This document explains that one of the main objects of the school of orificial surgery is the "uplift" and the training of "bigger, broader and better" physicians. Just how the uplift is to be accomplished in the direction of the orifices is, of course, not made plain. The *British Medical Journal* suggests cynically that British legislators, who, it seems, are being appealed to for help in grafting chiropractic and osteopathy into the British medical scheme, provide at the same time for a proper disposition of orificial surgery. Can we expect the world to take our science seriously while the preposterous claims of the numerous cults with which our people are afflicted continue to be tolerated?—*Jour. A. M. A.*, Feb. 6, 1926.

SURGERY OF TRACHOMA

S. Lewis Ziegler, Philadelphia (*Journal A. M. A.*, Feb. 6, 1926), asserts that the complications of trachoma are persistently maintained by two mechanical processes: (1) lid friction, from blepharophimosis and trichiasis, and (2) lacrimal maceration, from perversion of the tears and obstruction of the duct by trachomatous invasion. The practical problems involved are (1) to preserve normal tissue by conservative surgery, or, if this fails, (2) to resort to radical surgery. The conservative surgery of trachoma calls for (a) canthotomy and (b) rapid dilation of the duct, combined with (c) galvanocautery puncture, (d) Knapp's roller operation and (e) freezing by carbon dioxide snow; while (f) galvanocautery peritomy may be used to relieve pannus. The radical surgery of trachoma requires, in addition, (g) Burow's splitting of the cartilage or (h) Kuhnt-Heisrath's tarsal excision.

MEASLES TOXIN

A preliminary report is made by N. S. Ferry and L. W. Fisher, Detroit (*Journal A. M. A.*, March 27, 1926), on the preparation of measles toxin from a micro-organism isolated by them in pure culture from the blood of patients in the early stages of the disease. The organism differs from that described by Tunnicliff, in that it is an aerobe growing luxuriantly in the presence of oxygen and that it produces a soluble foreign specific to measles. The authors have named it *Streptococcus morbilli*. Proof of the etiologic relationship to measles of the organism from which it was obtained is shown in experiments carried out on persons susceptible and those immune to measles, as well as on persons suffering from the disease; also on rabbits and other animals. Horses and rabbits were injected subcutaneously with the specific toxin, in a manner similar to the production of other well known antitoxins, and proof of the antitoxic properties of the serum from these animals was evidenced by its ability to neutralize the toxin both in vivo and in vitro.

TOXIN-ANTITOXIN

One hundred and fifty thousand children, most of them fully immunized with toxin-antitoxin, have been under

the observation for a period of from one to five years through the Department of Public Health of Philadelphia, and none have given any marked reaction to toxin-antitoxin administration or have shown any tendency to protein sensitivity by test six months after the injections. Edward L. Bauer and H. B. Wilmer, Philadelphia (*Journal A. M. A.*, March 27, 1926), are therefore convinced that, in the use of the toxin-antitoxin mixture properly made and with the protein removed, according to the methods of Park and of Banzhof, no hypersensitivity to horse protein is developed. Further, they are convinced that it is safe and indeed wise to use toxin-antitoxin in asthmatic patients known to be susceptible to diphtheria. Therefore, to assume that hypersensitivity is developed by toxin-antitoxin, one must first prove that hypersensitivity was not present before the administration of the toxin-antitoxin, since those hypersensitive to horse protein do not react to the infinitesimal amounts of protein in the toxin-antitoxin mixture advocated.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

HOFFMAN'S NON-NUTRITIVE NUT FLOUR.—A preparation prepared from Tagua palm nuts, composed chiefly of unassimilable carbohydrates (mannans). This product is used as a means of filling out restricted diets. It is a non-nutritive food substance used to give bulk to foods thus serving to satisfy hunger without furnishing nourishment. Efficiency Products Co., Somerville, N. J. —(*Jour. A. M. A.*, March 29, 1926, p. 842.)

CARBON TETRACHLORIDE-MULFORD.—A brand of carbon tetrachloride-U. S. P. It is marketed in the form of capsules containing, respectively, 0.3 cc., 1 cc. and 3 cc. H. K. Mulford Co., Philadelphia. (*Jour. A. M. A.*, March 20, 1926, p. 842.)

RAGWEED COMBINED POLLEN ANTIGEN-LEDERLE.—For a description of the method of preparation and the form of marketing, see New and Nonofficial Remedies, 1925. p. 287. Lederle Antitoxin Laboratories. New York. (*Jour. A. M. A.*, March 20, 1926, p. 842.)

PROPAGANDA FOR REFORM

KIRKPATRICK PUL-BRO-TU.—This is a quack consumption cure exploited by one George Kirkpatrick of Portland, Ore. The nostrum was analyzed in the A. M. A. Chemical Laboratory and found to be for all practical purposes merely a weak solution of potassium iodide and solution of potassium arsenite (Fowler's solution). Pul-Bro-Tu has not the slightest value as a cure for tuberculosis: on the contrary, the product itself may easily do harm while he who relies on it is virtually committing suicide. (*Jour. A. M. A.*, March 6, 1926, p. 708).

REPORT OF THE COUNCIL ON PHARMACY AND CHEMISTRY.—During the past year the Council has carried forward its work of informing the medical profession in regard to proprietary medicines which physicians are importuned to use. The work of this body of trained men who labor untiringly and without remuneration in the cause of rational and scientific medicine deserves wider recognition and acceptance. It will receive this when physicians recognize more generally the fact that those who compose the Council have the needed specialized training to enable them, better than the average physician, to form a correct estimate of the many new medicaments appearing each year. The Council publishes the annual New and Nonofficial Remedies, which describes the medicinal preparations that are acceptable to the Council. Products not accepted are reported on in the annual reports of the Council, and these reports are collected in the Propaganda for Reform in Proprietary Medicines. In addition the Council publishes the Epitome of the U. S. Pharmacopeia and National Formulary and the book Useful Drugs.

While the Council has brought about a revolution in the field of therapeutics, much remains to be done. The success of the further endeavors of the Council will depend largely on the support which is given by the rank and file of the medical profession. Support can be most efficiently given by physicians and with full justice to themselves and their patients by confining their use of proprietary medicines to those which have been found acceptable for inclusion in New and Nonofficial Remedies. (*Jour. A. M. A.*, March 20, 1926, p. 850).

REPORT OF THE THERAPEUTIC RESEARCH COMMITTEE OF THE COUNCIL ON PHARMACY AND CHEMISTRY.—During the past year the committee has concentrated its work on the support of investigations carried out in schools and laboratories of recognized standing by supporting investigations for which small grants were needed to purchase material and apparatus. Fourteen eligible problems of high quality were submitted.

The committee appropriated two thousand three hundred and seventy-five dollars. Six papers were published during the year, and a number are almost ready for publication. (*Jour. A. M. A.*, March 20, 1926, p. 851).

REPORT OF THE A. M. A. CHEMICAL LABORATORY.—During the year the laboratory has been engaged largely in evaluating synthetics and drug preparations for the Council on Pharmacy and Chemistry and in analyzing nostrums for the Bureau of Investigations. The work which the laboratory does for the Council on Pharmacy and Chemistry is becoming increasingly involved and difficult. Similarly the analysis of patent medicines for the Bureau of Investigation is more complicated than formerly. The laboratory also carries out independent investigations; thus it has published a report on the quality of the market supply of cinchophen, a study of bismuth compounds and a study of liquid petrolatum-agar mixtures. The value of a chemical laboratory maintained by the American Medical Association is thoroughly demonstrated when comparisons are made between conditions existing in this and other countries. While abroad certain proprietaries are claimed to have this or that chemical structure, these claims are not made for them here when their composition has been shown to be otherwise. (*Jour. A. M. A.*, March 20, 1926, p. 851).

CEANOTHYN NOT ACCEPTABLE FOR N. N. R.—Ceanothyn is the name applied by Flint, Eaton & Co., Decatur, Ill., to a liquid extractive prepared from the bark of the root of *Ceanothus Americanus* (Jersey tea). Ceanothyn was recommended "for control of hemorrhage, in surgical procedure, post-partum hemorrhage, pulmonary hemorrhage, epistaxis, and disturbed conditions during the menopause." The Council on Pharmacy and Chemistry found Ceanothyn unacceptable for New and Nonofficial Remedies: (1) because its composition is uncertain, (2) because no tests are furnished to control its identity and uniformity, and (3) because no satisfactory evidence for its therapeutic value had been submitted. (*Jour. A. M. A.*, March 20, 1926, p. 890).

RADON (Radium Emanation).—It has been reported that the intravenous injection of long-lived radioactive elements or the internal administration of radium, mesothorium or radiothorium is highly dangerous on account of the delayed harmful effects. This is due to the deposit of insoluble particles of these elements in the storage organs, namely the bones, spleen and liver. These possible dangers apply to the administration of solutions of radium salts, but not to the ingestion of water charged with radium emanation (radon) since this is eliminated rapidly, the elimination being practically complete in the healthy individual in twenty minutes. (*Jour. A. M. A.*, March 20, 1926, p. 893).

THE DEFEAT OF THE STREPTOCOCCUS IN MEASLES, ERYSIPELAS AND PUERPERAL SEPSIS.—When the announcement was made that the Drs. Dick had shown that scarlet fever is a disease similar to diphtheria in that the streptococcus elaborates a toxin which is the

causative agent, medical philosophers predicted that other investigators would soon reveal similar causative agents for related diseases. It appears likely that these predictions are to be realized within the current year. Now Ferry and Fisher report that they have elaborated a skin test for measles with toxin prepared from an organism found in the blood of patients suffering with this disease. Experiments are also being made with streptococci associated with erysipelas and puerperal sepsis and preliminary reports indicate the possibility of similar success.

Moreover other organisms than the streptococcus are being studied with relation to toxin production, notably the staphylococcus, and more recently the tubercle bacillus. If these investigations are confirmed, it may well be that the present decade will pass into history as the one that saw the streptococcus defeated by medical science. (*Jour. A. M. A.*, March 27, 1926, p. 955.)

CURAY LIGHT APPLICATORS.—The source of light in a Curay lamp is an incandescent tungsten filament enclosed in a glass bulb. When used in the Curay apparatus, the lamp is operated on a higher current than its normal rating carries and therefore the life of the lamp is much reduced. The spectral energy distribution of the Curay lamp is mostly emitted in the form of heat and but a small fraction of the energy is emitted as ultraviolet rays. As compared with the quartz mercury arc lamp, the amount of ultraviolet rays emitted by the Curay lamp is insignificant.

The light of the Curay lamp is not comparable with sunlight for not only is the total amount less than that of sunlight, but a much smaller proportion of the energy is in the form of ultraviolet rays. Further the lamp has a glass bulb which strongly absorbs the ultraviolet rays given off by the filament. An exposure of the skin in actual contact with the quartz rod "applicator" supplied with the Curay lamp for one-half hour showed no ultraviolet erythema; an exposure of three and one-half minutes at a distance of one meter with a quartz mercury vapor lamp produced a marked erythema. The Curay Company supplies letters containing an account of supposed "cures" of colds and bacterial infections, but these concern uncontrolled experiments. (*Jour. A. M. A.*, March 27, 1926, p. 971.)

THE KROMAYER LAMP.—According to experiments made by the manufacturer, Hanovia Manufacturing Co., the Kromayer lamp emits no radiation shorter than 2,000 angstrom units, or longer than 14,000 angstrom units. Of the total radiation emitted, approximately 65 per cent falls in the ultraviolet field. The apparatus is dependable but no assertion can be made as to the properties of the rays. The company has collected the reports of results of investigations with the lamp, and supplies the references. (*Jour. A. M. A.*, March 27, 1926, p. 972.)

GONOLIN AND LUESAN.—These two products are manufactured by the Horovitz Biochemic Laboratories Company, New York. A. S. Horovitz, president of the Horovitz Biochemic Laboratories Company, has been referred to in connection with the asserted cancer cure "Autolysin." Later he appears to have been largely responsible for the "Proteogens," which the Council on Pharmacy and Chemistry declared inadmissible to New and Nonofficial Remedies. Subsequently the company of which A. S. Horovitz is president, prepared a line of "Protein Substances" similar to the "Proteogens," each one being claimed to be more or less specific against a given disease or condition. The claims advanced for Gonolin and Luesan bear a striking similarity to those made for the discredited "Proteogens." (*Jour. A. M. A.*, March 27, 1926, p. 972.)

BOOK REVIEWS

ABDOMINAL OPERATIONS. By Sir Berkeley Moynihan, K.C.M.G., Leeds, London, England. Fourth Edition, Entirely Reset and Enlarged. Two Octavo Volumes

totaling 1,217 Pages, with 470 Illustrations, Ten in Colors. Philadelphia and London: W. B. Saunders Company, 1926. Cloth, \$20.00 Net.

Moynihan is one of the ablest surgeons of the present time. He is also one of the most charming writers of medical English. We welcome this new fourth edition of his "Abdominal Operations." This work has received an adequate revision, two chapters have been deleted and several new chapters have been added. The new chapter which deals with surgical technique is a valuable addition to the book, here the author states that drainage is rather a means of sepsis than a measure of escape from its effects. When discussing cholecystomy, however, he states, "I never close the abdomen without a drain, though in the days of my adventurous youth I often did so." He warmly advocates the employment of blood transfusion for preparing questionable risks—he uses the citrate method and has a reaction in less than 10 per cent of cases. The author seems impressed with the importance of surgical treatment for visceral prolapse as he describes Waugh's operation in some detail and devotes eleven pages to operations for "mid-line ptosis." After discussing intestinal stasis and Lane's work he concludes that "among much that is dross there lies a nugget of pure gold." He exclaims that, "I think that if there is one procedure in surgery to which I am irrevocably pledged it is the performance of the simplest acts in times of acute danger;" then as the treatment for acute intestinal obstruction he advocates threading all the bowel, above the obstruction, on a glass tube.

American surgeons will at once turn to the chapters which deal with gastric and duodenal ulcers. Moynihan is satisfied with gastro-enterostomy for the duodenal cases, but he also destroys the ulcer by a cautery and infolds the area. In two thousand gastro-enterostomies he has had but one case in which the mechanics were wrong and he has never had trouble with a suture line. He stitches the mesocolon to the jejunum rather than to the stomach, as is generally done. The author has abandoned gastro-enterostomy alone in the treatment of gastric ulcers and regards gastrectomy as thoroughly satisfactory for the great majority of cases. He uses the anterior no loop method and in ten consecutive years the mortality has been 1.6 per cent. Moynihan insists that in all ulcer cases the gall bladder should be examined while the appendix should be removed as a matter of routine, and he states "I do not like to leave even a normal appendix (if there be such a thing) when I am within easy reach of it."

Moynihan admits that he has changed his mind in connection with the surgical treatment of cancer of the rectum more often than in connection with any other surgical subject. At present he employs the abdominoperineal resection of the rectum after the method of Ernest Miles. It is rather surprising to find the same quotations from Abraham Lincoln, regarding the changing of one's mind, in two separate places in the book. The reviewer can agree with the dictum that the common duct should never be opened merely to explore it.

MOUTH, THROAT, NOSE, EAR AND EYE. By Thomas H. Odeneal, M.D., Otolologist, Rhinologist, Laryngologist and Ophthalmologist to the Beverly Hospital Corporation, Beverly, Mass.; Massachusetts State Infirmary; etc. 428 Pages. Cloth, Price \$4.00. P. Blakiston's Son & Co., Philadelphia, 1926.

This book is different than most textbooks in the fact that it has nothing to say about the anatomy or physiology of the parts under consideration, and not even the stereotyped style of other textbooks is followed. However, the author has presented a very readable and very practical textbook. It discusses the diagnosis and treatment of the diseases of the mouth, throat, nose, ear and eye, always keeping in mind the relationship that the local affection bears to other parts of the body. Perhaps the criticism may be offered that the opinions expressed,

especially as concerns treatment, are altogether too much those of the author, but to our notion there is little or nothing offered to which complaint can be made and we doubt if anything has been left out that may be said to be of practical importance in a book of this kind. The recommendations as to treatment are sound, and there has been no waste of words in giving them. The author has even discussed the relationship of the endocrine glands to diseases of the throat, nose, ear and eye, and the relationship of focal infection to the production of symptoms and pathology of the special organs considered. Some very practical suggestions concerning imbalance of the eye muscles and the author's conception of deafness are included. While the book will not take the place of the usual textbook on diseases of the eye, ear, nose and throat, even for the student, yet it will form a valuable addition to the working library of physician and student alike.

ON THE BREAST. By Duncan Fitzwilliams, C.M.G., M.D., Ch.M., F.R.C.S. Ed. and Eng. Surgeon in Charge of Outpatients and Lecturer on Operative Surgery to St. Mary's Hospital; Surgeon to Paddington and Green Children's Hospital and to Mount Vernon Hospital for Tuberculosis. C. V. Mosby Company, St. Louis. 1924. Price \$10.00.

This monograph on the breast is a well written, carefully presented exposition of the subject. It deals with development, anatomy, abnormalities, inflammations, wounds and tumors of the breast. A valuable bibliography is found at the end of each chapter. The book is a valuable addition to the surgeon's library.

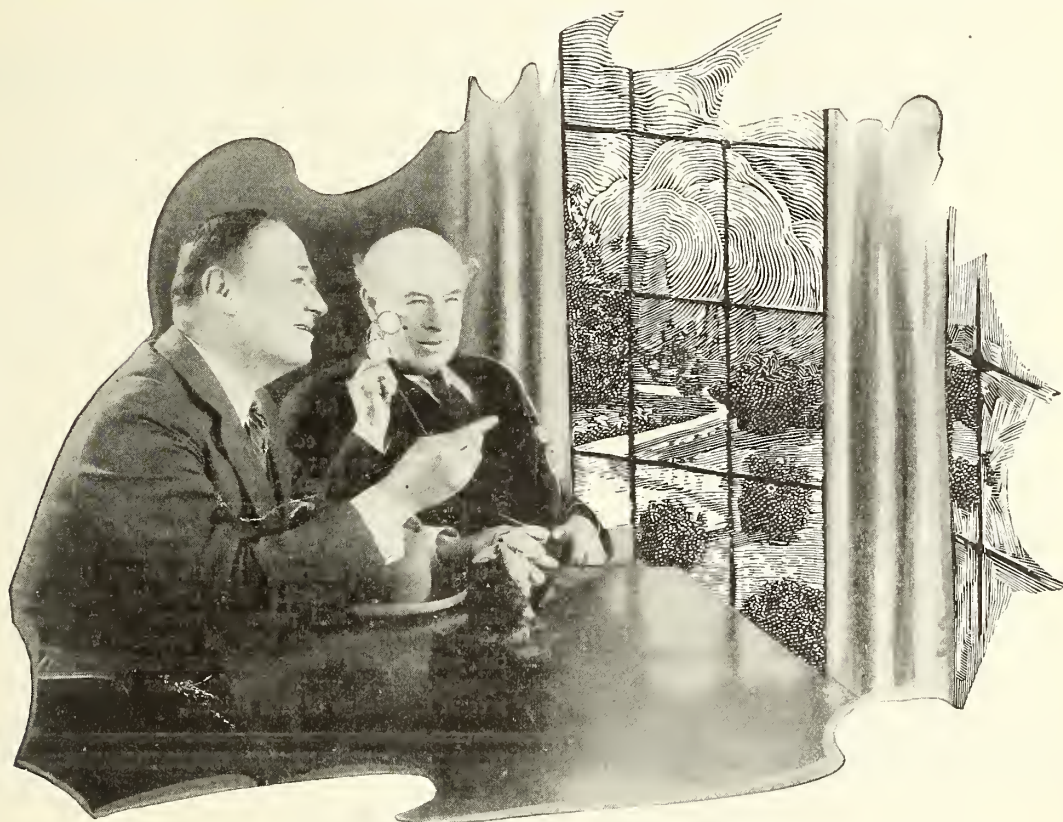
A fair criticism may be lodged in that very few recent references are presented in connection with important topics. The very valuable publication of Bloodgood, which appeared in 1921, on the pathology of chronic cystic mastitis, is apparently unknown to the author. The references to the literature on cancer of the breast embrace but one publication as recent as 1915! The chapter on chronic interstitial mastitis is unsatisfactory. Certainly, "Cancer Cysts" should be considered under the subject of carcinoma and not in the chapter devoted to cysts. The author states: "To my mind, there is no clinical difference between duct papilloma and duct cancer," and he seems to think well of the radical operation for this condition. American surgeons will doubt the wisdom of the teaching that a mass can be removed from a suspected breast cancer for microscopical examination and "that it matters not whether the verdict is given at once or after a delay of two or three days."

PHYSICAL DIAGNOSES OF DISEASES OF THE CHEST. By Joseph H. Pratt, A.M., M.D., and George E. Bushnell, Ph.D., M.D. Octavo of 522 Pages with 166 Illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$5.00 Net.

Physical diagnosis is a subject that receives too little attention at the hands of the average practitioner of medicine and it is an art that should be cultivated. The only way that it can be mastered is by beginning with the normal chest as recommended by the author of this excellent textbook, and by inspection, palpation, percussion, auscultation applied to the healthy chest. Comparing the findings with those discovered in the diseased chest, the author has devoted special attention to the subject of pulmonary tuberculosis for the reason that those who are its victims furnish an inexhaustible material for the study of physical diagnosis, and if one has mastered the diagnosis of pulmonary tuberculosis in its various forms the diagnosis of other diseases of the lungs is found to be relatively easy. In considering this subject the author has placed special emphasis upon the pathologic conditions that underlie physical signs, and what has been said concerning diseases of the lungs have been made to apply equally to diseases of the heart, a study of which is based in part on anatomy but chiefly on pathology, and

(Continued on Adv. Page xx)

["In which the Squibb Professional Service Representative leaves a timely reminder on Hay Fever Prophylaxis"]



"LISTEN Dr. Ryan! That's the first robin's song I've heard this season—and I notice your cherry trees are starting to bud."

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MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858



BOOK REVIEWS

(Continued from Page 220)

normal physiology. The author very aptly says that students, and even practitioners, are apt to forget that the seeing eye, the trained finger and the educated ear still are worth more to the examiner than all the instrumental means of diagnosis and his excellent book on physical diagnosis, which we have no hesitancy in recommending to the fullest extent, should not only stimulate the student to wider study of diseases but teach him to better interpret the physical signs that are presented.

DIFFERENTIAL DIAGNOSIS. By Richard C. Cabot, M.D., Professor of Medicine and Professor of Social Ethics at Harvard University, Volume 2, Third Edition, Revised. Octavo of 709 Pages, 254 Illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$9.00.

There probably have been no more practical books presented to the medical profession than those by Cabot on differential diagnosis, based upon an analysis of actual cases. While the present volume represents the third edition, it has been revised with a view to making the discussions more helpful even though the subjects discussed remain the same. In this second volume 317 cases are analyzed and the analysis of the history, symptoms and physical and laboratory findings are so elucidating that the reader obtains a better understanding of the differential diagnosis of disease than could be obtained in almost any other way.

PREVENTIVE MEDICINE. By Mark F. Boyd, M.D., C.P.H., Member of Regular Field Staff, International Health Board of Rockefeller Foundation; Formerly Professor of Bacteriology and Preventive Medicine in

the Medical Department of the University of Texas. Second Edition, Revised. Octavo Volume of 429 Pages With 135 Illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$4.00 Net.

New material has been added to this second edition of an acceptable work on modern preventive medicine. As the author well has said, it represents the minimum knowledge of the subject for the student of medicine or practitioner of medicine should be expected to possess. In reality the average medical man takes too little interest in public health problems and we therefore urge upon every practitioner of medicine the propriety of reading and digesting such a book as the author has here given.

DIET IN HEALTH AND DISEASE. By Julius Friedenwald, M.D., Professor of Gastro-Enterology in the University of Maryland School of Medicine, Baltimore, and John Ruhrah, M.D., Professor of Diseases of Children in the University of Maryland, Baltimore. Sixth Edition, Thoroughly Revised. Octavo of 987 Pages. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$8.00.

This is the sixth edition, thoroughly revised, of a well known and popular book on diet, and we take great pleasure in recommending it as being useful to the general practitioner, hospital internes, and medical students. It discusses the different kinds of foods, their compositions and uses, and the principles that should govern diet in both health and disease. To the doctor the book tells how to feed the patient. Diet lists and recipes of which there are many will prove of value. The authors have attempted to make the book of practical value and keep the subject free from fads or fancies. It has been brought strictly up to date in order to conform to our present knowledge of this subject.

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ORIGINAL ARTICLES

A BRIEF HISTORY OF MEDICAL ETHICS

GEORGE F. KEIPER, M. D.*
LAFAYETTE

The medical profession has been the butt of ridicule at times because of our former "Code of Ethics" and our now revised "Principles of Ethics." Folks can not understand our attitude in regard to the practice of medicine. First of all, let me say that we are altruistic and not egotistic in our efforts to bring comfort and happiness to suffering humanity. We think not of self. Our motto is service above self, and hence we venture where the laity is afraid; nay, rather forbidden to enter in the care of virulent contagion. We are not the only ones who have a code, or "Principles of Ethics." The lawyers have theirs. In 1852 the pharmacists formulated theirs, just six years after our own was first projected. Our dental confreres have a very fine brief one. Outside of professional lines we find that the United Typothetae, the printers, formulated one in 1891; the United Confectioners' Association in 1901; the National Food Brokers' Association in 1904.

Recently a number of dinner clubs have been organized, the Rotarians, Kiwanians, Optimists, Lions, Exchanges, Altruists, and such, and each apparently has its "Code of Ethics." So medical practice has pioneered in this matter for all the professions and other lines of business.

According to Webster, "Ethics is the science of moral duty," or more broadly, "The science of the ideal human character." The word comes from the Greek, meaning character.

From the earliest dawn of human life on earth, moral relationships were recognized. Our first parents were born innocent but ignorant, and they recognized their obligations to the surroundings in which they were placed.

The first brothers recognized them. Each had learned to protect the other and when the younger brother was slain by his older brother, his reply to the searching question as to the whereabouts of Abel is, "Am I my brother's keeper?" in which reply he admits he is.

*Deceased.

The study of ethics at this very moment is pursued in our colleges and universities by thousands of young men and women. It seems that our fathers were unfortunate in prefixing the word "medical" to ethics, for the broad principles of ethics in general are lost sight of, if possible, and delimit us in our relationship to each other professionally and to the community in general.

But ethics, after all, is more than a science. It is a philosophy for "Philosophy is a process of reflection upon presuppositions involved in unreflective thought." "Man is distinguished from other animals by his appetite for tranquil association with his fellows. His tendency is to act on general principles."

The great question which the medical profession faces is this: "Shall our ethics be egotistic (i. e. to benefit ourselves only), or shall they be altruistic (i. e. for the good we may do others)? The medical profession takes the latter attitude for service as the dominant note in all our work to relieve the sick suffering, no matter how dark the night or inclement the weather. So much given to this idea were our forebears that they would present no bills for service rendered patients. We passed that period long ago because the average doctor did not receive an adequate and a decent living, recognizing after all that the servant is worthy of his hire. But the same professional conscience still lives as to our relationships with each other and with the world at large.

A historical review of this subject is most interesting. It is necessary to appreciate the present situation in medical or professional ethics. The philosophy began crudely. But as mankind broadened the boundary of commercial relations, his ethical relations correspondingly broadened.

The beginnings of medicine are involved in myth. The ancient Greeks in a beautiful poetic way peopled Mount Olympus with a company of gods and goddesses, super-men and women, as it were. The presiding genius was Zeus, the Roman Jupiter. The poet Homer is largely responsible for this system of theology. The gods and goddesses had all the frailties and passions of mortals living below. Disease overtook them and Apollo was their physician. He possessed the

powers to produce deadly pestilences, for in whatever direction he hurled his poisoned arrows, there plagues arose. When the people prayed for remission he would send Chiron, the centaur, half man and half horse, to stay the progress of the epidemics. Apollo instructed Chiron in the details of the healing art. Apollo came down to earth for his wife and married Coronis, the daughter of a Thessalonian prince, and she lived afterwards with Apollo on the heights of Olympus. To this union was born Aesculapius, the Asclepius of the Greeks. He was instructed by Chiron, the centaur, to be a physician. Though born a god, he had a human heart given him by his mother. As he roamed the heights of Olympus, looking down upon the earth, mankind was sick and suffering. So he left Olympus to dwell with men, to heal them of their infirmities. He married Epione and they had two sons and two daughters, Hygeia and Panacea. Panacea gathered the herbs from which her father made medicine to heal the sick. Her sister, however, concluded that she would devote her time to teaching people, not how to get well, but how to keep well. She was convinced that, after all, human suffering was due to ignorance. So well did she succeed that she pretty nearly put her father out of business. Nevertheless, Pluto, god of Hades, noticed that the number of arrivals at his domain was gradually diminishing. He hastened to Zeus and made complaint that Aesculapius was depopulating hell, for what was the use of having a perfectly good hell with no one to live in it. Zeus was convinced, and he hurled one of his thunder bolts at Aesculapius, which disabled the old man. Ever afterward he was compelled on his rounds of mercy to use a stick, or rod, around which was entwined a serpent, emblematical of wisdom. He soon learned to raise the dead. Pluto, looking across the river Styx, beheld strange sights. Folks about to embark for his realm were turning back to earth. The boat was carrying passengers both ways. Hell was being depopulated. In great dismay he hastened to Olympus and made complaint to Zeus. Zeus hurled another thunderbolt at Aesculapius, which killed the old man. But his spirit still abides.

This legend is given that we may understand the references in the earliest ancient Greek code of medical morals.

The earliest known code is that of Hammurabi, King of Babylon, who reigned 2500 years before Christ, i. e., before the days of Abraham. This king is mentioned in Genesis under the name of Amraphel.

The code was chiseled upon a monument of block dionite eight feet high. It was discovered in December, 1901, and January, 1902, at the acropolis of Susa by an expedition headed by Director General DeMorgan, and sponsored by the French government. It was found in three

pieces which were easily fitted together to form the completed monument. At the top of one of the sides is a bas relief of the king receiving the code from the sun god. There are sixteen columns of text, four and a half of which is epilogue reciting the achievement of the monarch. He was a busy king, apparently. He conquered all opposing nations and was a god-fearing man and pious.

On the reverse side are twenty-eight columns of which four are the epilogue. In all there were 2,540 lines of writing; 1,114 remain. The rest were cut off by the Elamitic conqueror.

Several of the paragraphs relating to medicine are quoted, taking Harper's text:

196. If a man destroy the eye of another man, they shall destroy his eye.

198. If one destroys the eye of a freeman, or break the bones of a freeman, he shall pay one manna of silver.

199. If one destroys of a man's slave, or break a bone of a man's slave, he shall pay one-half this price.

215. If a physician operate on a man for a severe wound (or make a severe wound on a man) with a bronze lancet and save the man's life, or if he open an abscess (in the eye of a man) with a bronze lancet and save that man's eye, he shall receive ten shekels of silver (as his fee).

216. If he be a freeman, he shall receive five shekels.

217. If it be a man's slave, the owner shall give two shekels of silver to the physician.

218. If a physician operate on a man for a severe wound with a bronze lancet and cause the man's death, or open an abscess (in the eye) of a man and destroy the man's eye, they shall cut off his fingers.

219. If a physician operate on a slave for a severe wound with a bronze lancet and cause his death he shall restore a slave of equal value.

220. If he open an abscess in his eye with a bronze lancet and destroy his eye, he shall pay silver to the extent of one-half his price.

221. If a physician set a broken bone for a man or cure his diseased bowels, the patient shall give five shekels of silver to the physician.

222. If he be a freeman he shall give three shekels.

223. If it be a man's slave the owner of the slave shall give two shekels of silver to the physician.

224. If a cow doctor or a sheep doctor has treated a cow or a sheep for a severe wound and cured it, the owner of the cow or sheep shall give one-sixth of a shekel of silver to the doctor as his fee.

The Papyrus of Ebers is often referred to in elucidating ancient Egyptian medicine. The Egyptians had specialism specialized and specialists galore as a result. As many as thirty different physicians might be necessary to treat a

single patient; the sick were visited in their own homes by the physicians. The latter were called through the president of the temple and he could send the ones needed in the case. All this was 1500 years before Christ.

Herodotus writes "One treats only the diseases of the eye, another those of the head, the teeth, the abdomen and the internal organs."

It was about this time that the great law giver, Moses, appeared on the scene to rescue the bitterly persecuted Hebrews from bondage. One cannot read the first four books of the Old Testament and then the work entitled "The Son of Amos," without having a huge amount of respect for his learning and condition in the matter of medicine and sanitation. The works of Flavius Josephus also bear like testimony. Permit me to quote from Neuberger's *History of Medicine*: "The commands concern the prophylaxis and suppression of epidemics, suppression of venereal disease and prostitution. Care of the skin, baths, food, housing and clothing, regulation of labour and sexual life, discipline of the people, etc. Many of these commands, such as Sabbath rest, circumcision, laws concerning food (interdiction of blood and pork), measures concerning menstruation and lying-in women and those suffering with gonorrhea, isolation of lepers and hygiene of the camp, are in view of the conditions of the climate, surprisingly rational."

We now come to the time of Greek medicine. Greece was the center of culture of the world for a long time about 700 B. C. to the time of the Roman conquest. Livingston, in his book "The Greek Genius and Its Meaning to Us," tells us this, "Europe has nearly 4,000,000 square miles; Lancashire has 700; Attica has 700. Yet this tiny country has given us an art, which we, with it and all the world has done since it for models, have equaled perhaps, but have not surpassed. It has given us the staple of our vocabulary in every domain of thought and knowledge. Politics, tyranny, democracy, anarchism, philosophy, physiology, geneology and history—these are Greek words. It has siezed and up to the present day kept hold of our higher education. It has exercised an unfailing fascination, even on minds alien or hostile. Rome took her culture thence. Young Romans completed their education in the Greek schools. . . . And so it was with nature less akin to Greece than the Roman. St. Paul, a Hebrew of the Hebrews, who called the wisdom of the Greeks foolishness, drawn to their Arcopagus and found himself accommodating his gospel to the style, and quoting verses from the poets of this alien race. After him the church, which was born to protest against Hellenism, translated its dogmas into the language of Greek thought and finally crystallized them in the philosophy of Aristotle*.

Who then were some of these luminaries in the field above mentioned? They were Pericles, the statesman, whose funeral oration over the heroes of Marathon is the hardest piece of Greek to translate, as many a student of Greek will emphatically avow.

Poets there were in Pandir, Euripedes, Aeschylus, Sophicles and Aristophanes.

There were philosophers in Socrates, Plato and Zenophon, who wrote also the *Anabasis*.

History had its birth in Herodotus and sculpture in Phidias.

This was the environment in which was to arise the father of medicine, the great Hippocrates, for all these were his contemporaries in the golden age of Greece.

Is it any wonder then that he should write:

"(1) Medicine is of all arts the most noble, but owing to the ignorance of those who practice it, and of those who inconsiderately form a judgment of them, it is at present far behind the other arts. Their mistake appears to me to arise principally from this, that in the cities there is no punishment connected with the practice of medicine (and with it alone) except disgrace, and that does not hurt those who are familiar with it. Such persons are like the figures which are introduced in tragedies, for they have the shape, and dress, and personal appearances of an actor, but are not actors; so also are many physicians in title but very few in reality.

"(2) Whoever is to acquire a competent knowledge of medicine ought to be possessed of the following advantages: a natural disposition; instruction; a favorable position for the study; early tuition; love of labor; leisure. First of all a natural talent is required, for when nature opposes, everything else is in vain; but when nature leads the way to what is most excellent, instruction in the art takes place, which the student must try to appropriate to himself by reflection, becoming an early pupil in a place well adapted for instruction. He must also bring to the task a love of labor and perseverance, so that the instruction, taking root, may bring forth proper and abundant fruits.

"(3) Instruction in medicine is like the culture of the productions of the earth. For our natural disposition is, as it were, the soil; the tents of our teacher are, as it were, the seed; instruction in youth is like the planting of the seed in the ground at the proper season; the place where the instruction is communicated is like the food imparted to vegetables by the atmosphere; diligent study is like the cultivation of the fields and it is time which imparts strength to all things and brings them to maturity.

"(4) Having brought all these requisites to the study of medicine and having acquired a true knowledge of it, we shall thus in traveling through the cities be esteemed physicians, not only in name, but in reality. But inexperience

*Osler's *Evolution of Modern Medicine*.

is a bad treasure, and a bad friend to those who possess it, whether in opinion or reality, being devoid of self-reliance and contentedness and the reverse of both, timidity and audacity. For timidity betrays a want of powers, and audacity a want of skill. There are, indeed, two things, knowledge and opinion, of which the one makes the possessor really to know, the other to be ignorant.

"(5) Those things which are sacred are to be imparted only to sacred persons; and it is not lawful to impart them to the profane till they have been initiated in the mysteries of the science."

Smithies says: "This describes the social, educational, and personal qualities which go to make the ideal physician and no composition so tersely or so correctly exhibits the layman's weakness to judgment as exercise towards medical men."

How modern this statement appears in view of the vagaries seen on every side today, in the cults that seek competition with the legitimate practice of scientific medicine. Never was a more dignified protest offered to all such practices. But human nature has not changed evidently, for though we have advanced very far in scientific research and invention in the 2,500 years, yet the heart of man is as perverse as it was then. Unfortunately all the progress made has been the result of the efforts of rather a small minority for it is a startling fact that even today in this enlightened age but ten per cent in any profession, especially medicine, are the workers producing the things worth while. Would that all physicians were as zealous as the ten per cent.

Whatever reform has taken place in the practice of medicine has always come from the inside of the profession and not from the outside. We always wash our own dirty linen, sometimes unwisely in the public gaze, but mostly out of sight. Therefore, let us appropriate to ourselves the statements of the law of Hippocrates, bringing them down to the conditions as they now exist among us. We all make mistakes. The most successful man is not the one who makes no mistakes but the one who makes the fewest mistakes.

The law is taken from the genuine works of Hippocrates, a copy of which is in our public library, a perusal of which by all will be profitable if not edifying. The eloquent Patrick Henry before the Virginia House of Delegates, prior to the American Revolution, gave forth the "I have but one lamp by which my feet are guided, and that is the lamp of experience." Let us therefore examine the experiences of the authorities of the past as a proper guide for our conduct, present and future.

To this very day, medical students here and there take the oath of Hippocrates:

"I swear by Apollo, the physician, and Aesculapius, and Health and All Heal, and all the gods and goddesses, that according to my

ability and judgment, I will keep this oath and stipulation. To reckon him who taught me this art, equally dear to me as my parents.

"To share my substance with my fellow practitioners and to relieve his necessities if required; to regard his offspring on the same footing as my own brothers, and teach them this art if they should wish to learn it, without fee or stipulation, and by precept, lecture and every other mode of instruction, impart a knowledge of the art to my own sons and those of our teachers and to disciples bound by a stipulation and oath, according to the law of medicine, but to none others.

"I will follow that system of regimen which according to our ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous.

"I will give no deadly medicine to anyone if asked, nor suggest any such counsel, and in like manner I will not give to a woman a pessary to produce abortion.

"With purity and with holiness I will pass my life and practice my art. I will not cut a person who is suffering with a stone, but will leave this to be done by practitioners of this work. Into whatever houses I enter I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief, and corruption; and further, from the seduction of females or males, bond or free.

"Whatever in connection with my professional practice, or not in connection with it, I may see or hear in the lives of men which ought not to be spoken about I will not divulge, as reckoning that all such should be kept secret.

"While I continue to keep this oath unviolated, may it be granted to me to enjoy life and the practice of the art, respected by all men at all times, but should I transgress and violate this oath, may the reverse be my lot."

Each paragraph may well be text for a sermon on service, which has its origin from on high; for the legend of Aesculapius is nothing more or less than the attempts of the enlightened ancients in beautiful poetic fashion to tell us that the healing art is from on high; the gods came down to earth to heal the sick, and that all physicians are indeed akin to divinity. That is putting the practice of the healing art on a very high plane and with that sublime concept in view, is it any wonder that the father of medicine should write the oath he did?

In obedience to its precepts we find physicians everywhere referring with affectionate regard to their teachers of student days and to those of post student days, upon whose advice they rely. The young man should seek the counsel of the elders in the profession that he may avoid the pitfalls into which others have stumbled. Experience is an expensive teacher. A great deal of the expense may just as well be avoided.

We are brothers in the art, and it is wise in writing letters to our brother practitioners to put

the postscript "Very fraternally" above our signatures. We are to live clean lives, observing all the laws of God and man. "Thou shalt not kill" of the moral code is certainly paraphrased here, not only to the living but to the living yet unborn.

The father of medicine regarded the field of medicine and surgery too wide to be compassed by any one individual and recommended special surgery to those especially qualified to do it. But what of medical and surgical practice of today? If we could not compass the meager knowledge then extant, how can we be competent in all that is known now? Pardon me when I speak of my own specialty, alone. Over 20,000 pages of its literature appear each year. It is a high task to read it all intelligently.

Service above self has always been the motto of the profession, ages long before Rotary clubs came into existence. We regard not ourselves but others' welfare as paramount. We see oftentimes the seamy side of life. We see skeletons in family closets, obscured to other eyes, but we never divulge to a gossiping world the troubles into which these ugly accusers plunge their victims. Over all the sins of omission and commission of frail humanity we throw the mantle of charity.

To all who will thus practice the healing art, no fear shall be existent of an adequate financial support, and a competency against old age and its infirmities.

Upon the walls of our waiting room let us display the oath of Hippocrates that our clientele may read it for their own edification and inspiration. But never hang there the law. That should be hung in the sanctum sanctorum of our offices, for that is for our own private frequent perusal.

The oath of Hippocrates was the system of ethics for the profession of medicine until the year 1803. It held undisputed sway.

But 500 years after the father of medicine held sway, the Great Physician appeared, and He, too, from on high, from the very courts of heaven itself. Divinity indeed came down to earth this time. He was no mythical person. We have the abundant proof of his ministrations in healing the sick and cleansing the leper, and in raising the dead. He, too, gave us precepts, the sum of which is, "Whatsoever ye would that men do to you, do ye likewise unto them."

Rabbi Hillel the elder, a contemporary of Jesus, was asked by a scoffing irreligious libertine, to express all the teachings of God in a space of time no longer than one could endure bearing up the weight of his body on one leg. "Certainly," said he, "here it is, all of it—'Love thy neighbor as thyself,' all the rest is commentary."

The oath of Hippocrates was the ethic of the medical profession until 1803. In that year was published *Percival's Code*. Thomas Percival, its author, was born September 29, 1740, in Warrington, Lancashire. He was orphaned at three years

and raised by his elder sister. When ten his uncle, a physician, Thomas Percival, died, leaving him his library and a bequest of money. He was thus stimulated to study medicine and very wisely laid the ground work—its foundation in a first-class academic education, and when twenty-five received his degree from the University of Leyden. When twenty-seven he married Elizabeth Bassnet and moved to Manchester. He became a leader in medical and intellectual circles. Very wisely he began to write when twenty-seven, and his essay on medicine won him attention and reward in appointment as physician to the Manchester Infirmary.

His vision was very poor and he suffered severely with headaches. This would hazard a good guess that he was astigmatic. It made him reflective and introspective. He died in 1804. In a eulogy pronounced by the Rev. William Magee, later Archbishop of Dublin, "He was an author without vanity, a philosopher without pride, a scholar without pedantry, a student without seclusion, a moralist without moroseness, a patriot without faction, and a Christian without guile. The great object of his life was usefulness and the grand spring of all his actions was religion." (Locke.) As intimated thus he wrote much. One of his writings is entitled, "A Scheme of Professional Conduct Relative to Hospitals and Other Medical Charities," which became the Manchester Infirmary's code of actions. This was written in 1792. The whole code occupies fifty-six pages of octavo in small type, so extensive it is. It is divided into four chapters: (1) of Professional Conduct, Relative to Hospitals or Other Medical Charities; (2) of Professional Conduct in Private, or General Practice; (3) of the Conduct of Physicians Towards Apothecaries; (4) of Professional Duties in Certain Cases Which Require a Knowledge of the Law, the latter taking thirty-five pages to contain it.

Take Chapter I and Section V. Patients are to be interrogated in a voice not to be overheard. Secrecy and delicacy are enjoined. In Section VIII, no attention in prescribing is to be paid to the high price of drugs where necessary for relief. In Section XIII, frequent meetings of the faculty are enjoined to consider cases and operations. Section XVI provides for plenty of room for patients. Wards are not to be crowded. Section XVIII advises frequent consultations. In medical consultations the junior physician delivers his opinion first. In surgical consultation the junior surgeon first. In all, there are thirty-one sections minutely defining the subject matter considered.

In Chapter II he deals with Professional Conduct in Private, or General Practice, and it is divided into thirty-two sections. Section III, glowing prognostications are to be avoided because they savor of empiricism, by magnifying the importance of his services in the treatment or cure

of the disease. In Section IV officious interference is to be avoided. Sections VII-VIII provide for consultations and the manner of their conduct. The details are quite elaborate. In Section XI he recommends a regular academic education. Unnecessarily repeated visits are deprecated in Section XIII. The patient, even fatally ill, is to receive the same care and attention as though he could recover. A fee bill is recommended in Section XV. The circumstances of the patient are to be considered. Gratuitous attention to members of the profession, including apothecaries, is enjoined in Section XVI. Distant members of the faculty should pay traveling expenses. Clergymen receiving good salaries or possessed of fortunes are not to expect gratuitous service for they are not more privileged than any other order of patients. In Section XX physicians are enjoined to be careful in giving certificates excusing absence from duty in positions of honor and trust. Jury service is likewise regarded. Quack medicines are advised against in Section XXI. Neither should a physician dispense a secret nostrum.

The general welfare of the profession is to be constantly regarded and conserved. Medical disputes are to be settled by arbitration. Section XXV, a wealthy physician should not give advice gratis to the affluent because it is an injury to his professional brethren. Section XXVIII, calm reflection upon the termination of interesting and important cases, especially by death, is recommended that the review may be profitable to the physician. Discover, if possible, any mistakes in treatment. In other words, we are mentally to flagellate ourselves.

The apothecaries of one hundred years ago were a different class from the druggists of today. Apparently they had patients of their own, a practice in which some even to this day indulge in counter prescribing.

Complaint is made that the charges of apothecaries is, at times, extravagant. But he observes in Section VII, "Physicians are the only substitutes for physicians, surgeons for surgeons, apothecaries for apothecaries."

Endorsement is given to schemes to relieve indigent physicians and their families.

The fourth chapter deals "of Professional Duties in Certain Cases Which Require a Knowledge of the Law." This is founded on the British jurisprudence of that day, which held practically until this day in both Britain and the United States, for we obtained our jurisprudence from across the sea. In those days, as now, the doctor enjoyed "exemption from serving on inquests or juries; from bearing armour, from being constable and church warden, and from all burdensome offices."

It deals further with the duties of physicians relative to the last will and testament of the sick, with the treatment of lunatics. What is to be done

in cases of sudden death as to the coroner, as to homicide, suicide and manslaughter. The laws of England guard with assiduous care the lives of infants, especially illegitimate or bastards.

Physicians are cautioned to have nothing to do with duelling, either as principals or attendants. Deliberate duelling, if one is killed, is murder.

Homicide by poison is elaborately considered. Social morality is prominent and the honor and chastity of the female sex are guarded from violence.

The physician in giving evidences is exhorted to give it in the simplest language possible.

All this is written in the peculiar style of the day with spelling of words which is now extinct.

The profession is under great obligation to Professor Chauncey Leake, of the University of Wisconsin, for bringing out attention to this remarkable code of ethics which is the foundation of all the codes on medical ethics which have appeared since, no less either than that of the American Medical Association.

Percival's Code, while very elaborate and suited to the need of Great Britain, yet contained so much of good for the profession everywhere, became the model for all codes since then.

In the early eighteenth century, continuing on for several decades, medical colleges multiplied rapidly. Many of these had no justification for existence being preparatory and serving mostly as advertisements for their respective faculties. Many, however, were practicing medicine without any preparation whatever, or at least a very meager one. Naturally, protest was inevitable from those who had taken pains and time and spent money to get a suitable mental equipment.

At Lexington, Kentucky, was located Transylvania University, which also taught medicine. One of its professors, Dr. Samuel Brown, M.D. (I use the M.D. advisedly) formed a secret society of physicians called Kappa Lambda Society of Aesculapius, and its members were bound to a rigid code of medical ethics. It seems there were a number of chapters of this organization founded throughout the country. But the movement was subject to attack and it disappeared. Nothing further is known of Brown, outside his activity in the organization of this society with its noble ideals. In 1832 the Maryland Medico Chirurgical Society published, "A System of Medical Ethics," prefaced thus:

"In the composition of this code of ethics, free use has been made of Percival's ethics, an abridgment of the same by the Kappa Lambda Society of Philadelphia, Gregory's Lectures on the Duties and Qualifications of a Physician, the Code of Ethics drawn up by the New York State Medical Society, that of the Connecticut Medical Society, Rush Medical Observations and Inquiries, and Lectures, and Ryan's Medical Jurisprudence by Griffith. This acknowledgment will render special references unnecessary (Leake).

As intimated, Benjamin Rush, one of the signers of the Declaration of Independence, had published in 1794, "Concerning Observations on the Duties of a Physician, and Methods of Improving Medicine Accommodated to the Present State of Society and Manners in the United States."

In 1846 in Philadelphia was organized the American Medical Association. Dr. N. S. Davis, of Chicago, was largely responsible for the movement. Of course, a constitution and by-laws were adopted next year, together with a Code of Ethics which was founded on Percival's Code. This has undergone many modifications since then but the basic principles are all there. As to the changes necessary the latest addition was made a couple of years ago in Section 4 of Chapter II, entitled, "Advertising." The group idea in practice began to manifest itself in an obnoxious manner in several quarters by rank solicitation of patients, and also unethical advertising, and so the House modified that section to meet the new conditions.

We call our code now "The Principles of Medical Ethics" of the American Medical Association. The profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration.

Chapter I deals with the duties of physicians to their patients and contains four sections. Chapter II, the Duties of Physicians to Each Other and to the Profession at Large, contains six articles of thirty-one sections. Chapter III, on the Duties of the Profession to the Public has four sections. The conclusion reads as follows: "While the foregoing statements express in a general way the duty of the physicians to his patients, to other members of the profession and to the profession at large, as well as of the profession to the public, it is not supposed that they cover the whole field of medical ethics, or that the physician is not under many duties and obligations besides these herein set forth. In a word, it is incumbent on the physician that under all conditions his bearing toward patients, the public and fellow practitioners should be characterized by a gentlemanly deportment and that he constantly should behave toward others as he desires them to deal with him. Finally, these principles are primarily for the good of the public, and their enforcement should be conducted in such a manner as shall deserve and receive the endorsement of the community.

In Percival's code there are ninety-two sections which are quite voluminous in detail. In our Principles it is boiled down to thirty-nine sections, tersely stated and in advisory form, and suited to present medical and surgical practice.

The tendency of late years has been towards simplicity of statement in the matter of ethics. Because of the prostitution of surgery to commercial ends, the making of unnecessary opera-

tions, the secret division of fees and the generally poor service of hospitals, a new organization took form in 1912 in the organization of the American College of Surgeons, an outgrowth of the Clinical Congress of Surgeons of North America in November, 1912, and the organization was effected May 5, 1913, in the city of Washington, with an initial membership of 450, and it was the privilege of three Lafayette physicians to be among its first members, Drs. George K. Throckmorton, R. B. Wetherall and George F. Keiper. It became instantly popular and at the time of the second convocation in Philadelphia over two thousand were enrolled as fellows.

Each fellow takes the following pledge which is the very code of principles of ethics:

"Recognizing that the American College of Surgeons seeks to develop, exemplify and enforce the highest traditions of our calling, I hereby pledge myself, as a condition of fellowship in the college, to live in strict accordance with all its principles, declarations and regulations. In particular I pledge myself to pursue the practice of surgery with thorough self restraint and to place the welfare of my patients above all else; to advance constantly in knowledge by the study of surgical literature, the instruction of eminent teachers, interchange of opinion among associates, and attendance on the important societies and clinics; to regard scrupulously the interests of my professional brothers, and seek their counsel when in doubt of my own judgment; to render willing help to my colleagues and to give freely my services to the needy. Moreover, I pledge myself, so far as I am able, to avoid the sins of selfishness; to shun unwarranted publicity, dishonest money seeking and commercialism as disgraceful to our profession; to refuse utterly all secret money trades with consultants and practitioners; to teach the patient his financial duty to the physician and to urge the practitioner to obtain his reward from the patient openly; to make my fees commensurate with the service rendered and with the patient's rights; and to avoid discrediting my associates by taking unwarranted compensation. Finally, I pledge myself to co-operate in advancing and extending by every lawful means within my power the influence of the American College of Surgeons."

As a result of this movement, the standardization of hospitals was effected and to be upon the list of the college a minimum standard is necessary to observe. Its headquarters are in Chicago, and it is well housed. Its endowment fund approaches \$650,000. Its membership is 7,400. But there are 26,000 surgeons and 100,000 medical men in the country, besides. The impress made by this minority is felt by all reputable practitioners everywhere. So much so that the physicians themselves have organized the American College of Physicians, now four years old, and it has its pledge of fellowship:

"Appreciating deeply that the American College of Physicians has been organized for, and is conducted with the object of emphasizing, developing and propagating the noblest principles and traditions of our calling, and having voluntarily sought to amalgamate myself with this college for the purposes specified, on this occasion, upon affiliating myself with the college, I solemnly pledge that I will live in strict conformity with its ideals, plans and regulations.

"Especially do I pledge myself to the practice of medicine in accordance with the high principles specified by the Hippocratic Oath, and with the universally recognized ideals exemplified in the 'Golden Rule'; to consider ever primary to my own, the welfare of patients dependent upon my professional knowledge and skill; ever to respect the interests and reputation of my colleagues, as occasion requires to supplement my own judgment with the wisdom and counsel of competent medical specialists; to render my assistance willingly to my colleagues; to extend freely my professional aid to the unfortunate, the poor and the needy; to advance steadily in knowledge by the reading of authoritative medical literature, by attendance at important gatherings of medical men, by post graduate instruction from men of eminence and position and by the free interchange of experience, and opinion of my associates.

"Further, I promise, in so far as in me lies, to shun the public press or public gatherings of laymen where my attitude might be regarded as seeking self advancement; to avoid selfishness and commercialism in my professional practice; to influence patients to appreciate their financial responsibilities to their medical advisors; to adjust my fees to the circumstances of my patients, and to make such fees commensurate with the service rendered and to avoid discrediting my profession by seeking unwarranted compensation.

"Moreover, I hereby condemn, and pledge myself to avoid, all questionable or abasing money trades with brother practitioners, or with consultants, and I hereby swear that, at all times, I shall endeavor to spread such ideal and high ethical mode of practice among those physicians with whom I come in contact.

"Finally, I solemnly pledge myself to cooperate, by all suitable and just means, in extending and advocating the high moral, ethical and professional and scientific principles and the influence for good as specified in the constitution and by-laws of the American College of Physicians."

Both these documents are splendid and truly the medical profession, surgically and medically, has again put itself on record as being utilitarian and idealistic, rather than egotistic; not self, but service; altruism the dominant note in service.

I cannot close this essay without referring to Dr. Frank B. Wynn, of sacred memory, a true physician, honored and respected, not only at

home where we knew him so well but throughout the whole nation medically for his achievements scientifically and otherwise. He essayed some years ago to write on this problem and published serially in the Journal of the Indiana State Medical Association a series of articles on medical ethics, and he concluded the series with his Ten Commandments of Medical Ethics:

1. Reverence and Responsibility: Remember the Creator in the days of thy professional youth. Bow reverently before the wonderous human body, sick or well, as thou wouldst before a sacred shrine, conscious of thy high duty, and resolve to serve to the best of thy power, whether the patient be white or black, prince or pauper, saint or degenerate.

2. Historic Appreciation: Honor thy father and thy mother. Likewise, give praise to the fathers of medicine whose rich heritage of scientific and clinical truth has been handed down to thee through centuries of patient toil. Hold fast to that which is good, but let not prejudices, coming out of the past, blind thy vision to the newer truths of medical advancement.

3. Keep the Faith: Thou shalt not worship the graven images of false practice, of avarice and selfishness, which eat at the very heart of medical idealism; of clever artifice or brazen quackery which knowingly deceives; of erratic isms and cults which tell but half truths, leading the ignorant and unwary astray.

4. Inviolable Confidences: Thou shalt not disclose the secrets confided to thy keeping by trusting patients, unless they be of criminal or treasonable import. Nor shalt thou abuse the intimacy granted thee by women, which becomes a professional and moral obligation thou shouldst hold inviolate.

5. The Sanctity of Life. Thou shalt not hazard life unwarrantedly. Neither shalt thou shirk before the obvious perils of duty when life is at stake. The unborn shalt thou not destroy, except after due consultation it is deemed advisable for the larger saving of life. Suffer not death to come through neglect in the care of the sick, nor from failure in reading, study and counsel, to gain the greatest benefit for the patient.

6. Professional Co-operation: Thou shalt not bear false witness against a worthy professional brother, but seek even to protect his reputation from calumnious attack by misinterpreting laymen. Of thy knowledge give him unstintingly, counselling and co-operating for medical progress.

7. Gentlemanly Conduct: Thou shalt not prate of cases, nor countenance unseemly boasting of thy achievements in the lay press. Always a gentleman, let thy conduct be reserved but without flattery; dignified but of a warm heart; tender in ministration, but firm in command; clean of body, speech and mind.

8. Honest in Business: Thou shalt not steal;

neither shalt thou make extortionate charges nor deceive by the secret division of fees. Let thy service be worthy of hire for which exact fair compensation, but by open methods, with conscience void of offense toward thy fellow men.

9. *Obligation to One's Own*: Take heed of the morrow for the sake of thine own flesh and blood. Therefore shalt thou keep orderly accounts, collecting from the full handed just recompense for service rendered. To the poor and to families of deserving colleagues thou shouldst account it a privilege to render faithful attention.

10. *Personal and Public Service*: Remember thou art thy brother's keeper physically in the measures advised for the prevention, alleviation or healing of disease; spiritually in the cheer thou bringest to heavy hearts and the courage thou givest to halting steps. So walking upright before man, mayest thou show thyself approved unto God. Thus journeying towards life's end, if not singing with the Psalmist, "My cup runneth over," thou wilt at least be sustained by the reflections of "A workman who needeth not be ashamed."

Soon after writing the above Frank Wynn suddenly did come to life's end, no doubt singing with the Psalmist the concluding words of his Ten Commandments.

Medicine is a profession for good men.

I have stated that the tendency is towards simplicity of statement or rather back of the simplicity of statement for did not the Great Physician after all give us in a few words the real essence of it all when he said, "That which ye would than men should do to you do ye likewise to them."

MILK INJECTIONS IN GYNECOLOGY AND OBSTETRICS*

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For more than thirty years the prevailing idea in practical medicine has been to treat bacterial diseases, which represent the great majority of all human ailments, by "specific" means, that is to say, by specially prepared vaccines or sera which were to exert a direct and selective action upon the bacteria in a given case. How brilliant the achievements of this specific therapy have been in many infections is, perhaps, best illustrated by diphtheria, the first diseases in which a specific antitoxin was used. Curiously enough, it was found, about eight years ago, that patients with diphtheria who were treated with "empty" horse serum, recovered just as promptly as those who had received antitoxin. Similarly startling observations were soon made in other diseases. It was noticed, for instance, that acne eruptions on the face and various forms of arthritis were re-

lieved by injections of typhoid vaccine though neither affection had been caused by typhoid bacilli. After such observations had been made repeatedly in a variety of bacterial diseases, two deductions became obvious, namely, first, that the substances used were proteins of various kinds; second, that such proteins, if injected subcutaneously, intramuscularly, or intravenously, often exerted a beneficial effect in many infections even though there was no relation whatever between them and the causative bacteria.

Non-Specific Therapy: These groping clinical experiments gradually crystalized themselves into a definite form of treatment to which the term "non-specific protein therapy" was applied. Though this novel method has been in existence less than ten years, it already has established for itself a legitimate place in almost every branch of practical medicine; and medical literature contains numerous reports of successful treatment of pneumonia and typhoid, of eye and skin diseases, of arthritis and a host of other ailments.

One need not be particularly skeptical to inquire how it is possible that *one* remedy or *one* form of treatment can accomplish equally good results in so many different diseases. To give an answer to such a question, we must go back to fundamental conceptions and realize that recovery from any disease takes place, in its last analysis, in the diseased cell itself. Here is the battle ground where the ultimate outcome of any infection is decided. If the attacking microbes are too strong, the affected cells will die quickly; and it will largely depend on the nature of these microbes whether or not the rest of the body will be in danger. If, on the other hand, the physico-chemical properties with which all living tissue is endowed and which constitute its natural means of defense, are sufficient to hold the invaders in check or to overcome them, restitution will take place: to be precise, some of the affected cells will succumb, but the surrounding cells form an impassable barrier against further progress of the infection. Thus does recovery from pneumonia, from typhoid, in fact, from any infectious disease take place.

What we physicians accomplish in our treatment of disease consists largely in aiding the diseased cells to rid themselves of their enemies, in removing unnecessary obstacles and handicaps, in preventing breakdowns in other parts of the complicated and delicate machinery of the organism—in one word, in *stimulating* the natural defensive apparatus of the body. From time immemorial we have tried to do all this, more or less unconsciously, by means of drugs and other medicines. I say "unconsciously," because this aspect of medicinal treatment as a support of the weakening body cells is only of very modern origin. More recently, however, the idea of stimulation has found a more deliberate expression in the growing employment of certain physico-chemical

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forms of treatment such as heliotherapy, hydrotherapy, and electrotherapy. Surely, the encapsulation of tuberculous foci in the lungs as the result of sunlight and air, the limitation of an abscess under moist compresses, the absorption of an exudate in an inflamed joint by means of diathermy can only be interpreted as examples of successful stimulation of affected body cells.

Of vastly greater stimulating effect than any of the procedures just mentioned, is the protein therapy. And further, this protein stimulation is not only more intensive but also more *extensive* and affects the *entire* body. From very recent researches it seems fairly probable that this "omni-cellular" effect is transmitted by way of the sympathetic nervous system. However, while the stimulating impetus is carried throughout the organism, the response to stimulation is not the same in all parts of the body. Healthy cells are least, diseased or weakened cells are most stimulated. This behavior is by no means paradoxical because we have learned from the physiologists that abnormal cells as long as they are not damaged beyond repair, react to any form of stimulation much more promptly than do normal cells. To those cells, then, which are engaged in warfare against bacteria, the new and powerful stimulation of a protein injection does what the whip does to the tired horse—it causes a last, determined effort.

Effect of Protein Injections on the Body Cells: This final effort is represented by several important biological phenomena: The nucleus which was near dissolution, regains shape and size; the protoplasm recovers its phagocytic quality which was nearly exhausted; the intracellular and intercellular metabolism is increased, and with the acceleration of the chemical reactions within the cells, antibodies and ferments are poured out which weaken or neutralize the bacterial toxins; and, finally, there is a greater permeability of the vessel walls whereby inflammatory exudates are more readily absorbed. The whole process has aptly been described as "plasma activation."

All this we know from histological and biochemical studies, but there are also outward and visible proofs of plasma activation.

The first effect of the protein injection manifests itself, within a few hours, in the form of the so-called general reaction. There is usually a chill followed by a rise in temperature which may reach as high as 105° F. In some cases there may be only drowsiness, increased perspiration, or slight nausea. After intravenous injections the general reaction is always more intense than after either intramuscular or subcutaneous injections. The fever subsides in from twelve to twenty-four hours and gives way to a feeling of intensified well being which is noticed by the patients in practically every instance and grows even more pronounced during the course of treatment. Appe-

tite and sleep improve, and the depression of general malaise disappears. The rise in temperature is regularly accompanied by an increase of leucocytes; 20,000 to 25,000 are by no means exceptional figures, at least after the first one or two injections. This hyperleucocytosis fades away within two or three days, to reappear, in milder forms, after each subsequent injection.

In addition to this obvious response of the whole organism, there is also a "focal" reaction at the site of the inflammation. In superficial infections we plainly see a transitory increase in swelling and redness, and by analogy we may assume that also foci hidden in the depth of the body become more swollen and reddened. This explains why in some cases of pyosalpinx, for instance, the first few injections are followed by increased, but transient tenderness—not at the site of the injection, but within the pelvic or abdominal cavity. On the whole, however, the "focal" reaction is insignificant, and both focal and general reactions, as a rule, diminish in intensity as the infection loses its hold.

Of course, plasma can only be activated if there is still a modicum of regenerative power left in the affected tissues. The duration of the infection, therefore, will have a bearing on the influence of protein stimulation; and practical experience has, in fact, demonstrated that favorable results are more likely to occur, the earlier in the course of the disease protein injections are administered.

Milk Injections: The number of proteins which have been used for clinical and experimental purposes, is quite large. In actual practice only a few substances need be considered; of these milk has become most popular since 1916 when Robert Schmidt, of Prague, introduced it into medicine. He preferred it to other proteins because, as he had said, it was available even in the remotest village and its producer, the organism of the cow, seemed to him as reliable as any pharmaceutical laboratory.

We have followed the original procedure of Schmidt for more than three years, but in the last fifteen months we have modified it according to the suggestion of Graves, of Roanoke.

The technique is now, as follows: Ordinary household milk is rendered fat-free by centrifugation and boiled in test tubes in a water bath for ten minutes in such a manner that the test tubes do not touch the bottom of the vessel. By first sterilizing the centrifuge tubes and test tubes the probability of imperfect sterilization of the milk is averted. The milk is then drawn through a long needle into a syringe, both of which, of course, must be sterile. If the services of a laboratory are available, the fat-free milk may be rendered sterile by pasteurization for one hour at 80° C. on six successive days. Or else, pharmaceutical milk preparations which are marketed in

sterile ampoules and under various trade names may be used.

The milk is injected into the upper portions of the buttocks under the usual antiseptic precautions. *Local irritation denotes insufficient disinfection of the skin.* If the injection is made slowly and through a long, thin, and sharp needle, it is painless, or practically so. Absorption is speedy and we have never observed an abscess in the thousands of injections we have made.

The initial dose is 5 cc., the standard dose 10 cc., which is reached with the second or third injection and then maintained throughout the course of treatment. In very feeble patients, the first dose may be as low as 3 cc., and is increased only cautiously.

The interval between injections is from three to five days, in indolent patients occasionally only two days. We are guided herein largely by the clinical aspect of the case and the leucocyte count. When the latter has receded sufficiently from its peak, new stimulation is in order. To prevent misunderstanding, the *first* injection is given no matter how high the original count was.

The "general" reaction sets in about six hours after injection. It used to be rather stormy in many instances, but since the employment of fat-free milk it has greatly abated, and chills and elevations of temperature are, as a rule, but slight, though hardly ever totally absent. In the course of treatment, the general reaction becomes progressively less pronounced and requires very careful clinical observation to be detected. Whereas anaphylactic shock has followed not infrequently the intravenous injections of proteins, such as casein, no such complication need be feared from intramuscular injections. Only three cases of this kind have been reported in the literature of the world. It is possible that in these cases the fluid was injected unintentionally into a vein, and it is good practice to make sure that the needle has not punctured a vessel by first drawing up the piston.

"Focal" reactions have been very infrequent in my experience. When present, they disappear after the next few injections.

The treatment requires no hospitalization unless the condition of the patient demands it. In mild cases the injections are given at the office or in the clinic, but the patient is warned to expect a chill and to keep to her bed if necessary.

It may not be amiss to state here, that other tried measures of general or local cell stimulation are not discarded, and that very often the best results are achieved by a combination of these with protein therapy.

Milk Injections in Gynecology: Of the various infectious diseases of the female genitals, gonorrhea, or to be more exact, gonorrhea of the tubes, is the one which responds most readily to protein injections. This is all the more gratifying because the treatment of ascending gonorrhea,

on the whole, is very unsatisfactory. That in very exceptional cases, prolonged rest in bed combined with conservative antiphlogistic measures may bring about a cure, cannot well be doubted; but how infinitesimal this chance is, may be inferred from the immense number of operations which are performed daily for pyosalpinx or its sequels. Surgical treatment, again, offers relief only under certain conditions. I cannot discuss the entire evolution of surgery in gonorrhea of the appendages, because that would lead me too far afield. But this much must be said here that the removal of one, or even both, tubes has not solved the problem, and that only the complete extirpation of both uterus and adnexa, in the vast majority of cases, cures the patient. Unfortunately, this radical procedure unsexes her at the same time, and as most of these patients are young girls or women, the price they have paid for relief, seems staggeringly high.

It was, therefore, a source of greatest satisfaction to me when, by personal observation, I found the claims of foreign writers confirmed that ascending gonorrhea is often amenable to protein therapy. The usual sequence of events in such cases is almost from the start, a decided *subjective* improvement which, after two or three injections, results in complete surcease of pain. The occasional occurrence of a focal reaction with an initial increase of tenderness has already been mentioned. *Objective* improvement is hardly ever delayed until after the fourth injection. Except in cases of very long standing, tubal tumors usually diminish in size and often disappear completely. Exudates, even those of great dimensions, may vanish without a trace, though in some cases insignificant thickenings may remain. The earlier in the course of the disease the treatment is begun, the more rapid and complete success is likely to be. At times even tumors of long standing respond with surprising rapidity. I have seen stone-hard exudates which cemented the entire pelvis and obliterated all landmarks, melt away after a half dozen injections so that the thickened, but now indolent tubes could be mapped out. In two instances, the tubes which originally had the size of cucumbers, were found soft and patulous on laparotomy two or three months after treatment. This, to be sure, may happen after the ordinary treatment, but certainly not as quickly nor as often as after protein therapy; for I know of another case of the same kind in the practice of a friend of mine. Combination with the older and tested means of treatment such as rest, heat externally and internally, glycerine tampons, etc., will serve to hasten results.

I wish I could submit statistics as to the frequency of cure; but after the first thirty cases separate records were no longer kept. By that time I had satisfied myself that tubal gonorrhea could actually be cured with milk injections, and

since then *all* patients with tubal involvement were subjected to this treatment. If not relieved, these women could still be operated upon; but it may be stated that in the hospitals under my control operations for pyosalpinx have become as infrequent as they were numerous in former years. Instead, such patients are now injected in the clinic, and they are usually lost sight of, when they feel relieved and able to work again. This instability of clinical patients makes accurate statistics so impractical. It may be that some such patients drift into other hands and undergo operation later. In private patients, however, supervision is, as a rule, easier and more complete, and for these I can vouch for definite cure in a number of cases. Or, if there was no complete disappearance of the tubal tumors, there was at least a condition which, as far as well-being and ability to work was concerned, amounted to a cure. In one case there was, after six months, a return of tubal swelling and exudate which again yielded to milk injections, and since this patient has been protected from reinfection by her widowhood, the cure has now lasted for several years.

Personally, I have not yet observed a case of pregnancy following milk injections but several such instances have been reported, for instance, by Rawls from the Woman's Hospital in New York.

I am very far from claiming that every patient with ascending gonorrhea can be cured, for I myself have met with a number of refractory cases, but I feel very strongly that protein therapy should be tried in every instance, as it, in no wise, compromises later operation. I do not hesitate to recommend such a trial even in the acute state of the disease where, heretofore, any form of treatment has been considered inadvisable. Theoretically, an infected organism might rid itself of the invading microbes and require no help from without. But in gonorrhea we know the outcome beforehand. We know that the gonococci will win out in every instance and that self-cure does not take place. Why, then, waste valuable time and permit the microbes to gain a firm foothold?

Gonorrheal Bartholinitis is, likewise, favorably influenced by milk injections. In several cases of this sort the swelling of the gland which had not yet assumed extensive proportions, subsided promptly after two or three injections. In one instance, the inflammation recurred in pregnancy but could be kept in bounds by injecting small quantities around the periphery of the swelling. On the other hand, I had under my care not long ago a young woman with subacute gonorrhea and an abundance of typical gonococci in both the urethral and cervical discharges, in whom milk injections could not forestall the appearance of a large Bartholinian abscess which required incision and drainage.

Such failures merely indicate to my mind the

limitations of the new treatment, a fact which should curb an injudicial overenthusiasm. Even at this early stage of our knowledge it has become apparent that not all parts of the genital tract are equally benefited by protein therapy. The ovaries, for instance, seem to be entirely unresponsive. Bladder and uterine body respond more readily, while the infection in Skene's ducts and the glands of the cervix, as a rule, remains uninfluenced. Only in two cases of frank gonorrhea have I seen the infection of the cervix clear up completely after milk injections alone; in all other cases, additional local treatment was needed.

Of other, non-gonorrheal affections, genital and peritoneal tuberculosis is claimed by continental writers to yield to protein therapy. I have no personal experience on the subject and would attempt milk injections only after I had made sure that the lungs were clear lest the treatment would cause quiescent foci in that locality to flare up.

In one case of large pyometra following radium treatment for inoperable cancer of the cervix, and in another of lochiometra after cesarean section with excessive fever I have seen results from milk injections so prompt and convincing that coincidence might well be excluded.

I have observed the complete disappearance of two large pelvic abscesses after five and eight milk injections, respectively. One case resulted from an attempted abortion with slippery elm tents; the other occurred after perforation during curettage. In both instances, there was hyperpyrexia and hyperleucocytosis, severe peritoneal reaction, and a fluctuating tumor which extended almost to the umbilicus above and bulged deeply into the posterior fornix below. I refrained, in these two cases, from the logical treatment, namely, incision and drainage, merely to test the then new method of protein therapy, and I was immensely gratified by the signal success achieved. Of course, this does not mean that the surgical emptying of an abscess is now obsolete.

As a general proposition, however, it may be stated that in all gynecological diseases of bacterial origin a trial with milk injections might well precede any surgical treatment. Even if no cure results, there can be no harm from it; on the contrary, the general condition of the patient is bound to be benefited.

Milk Injections in Obstetrics: This applies, with equal force, to the use of protein therapy in the realm of obstetrics. Is it necessary to point out how peculiarly helpless we are in the treatment of the various forms of puerperal infection? There we have no reliable specific therapy at our disposal, and our only hope lies in the natural power of resistance of the organism, in the ability of the infected cells to defend themselves. How often this natural resistance fails is expressed in the thousands of women who die every year from childbed fever; how often it is insufficient, becomes

manifest in the vastly greater number of women whose life-long ills were caused by a puerperal infection. It is not to be expected that this mortality and morbidity can ever be wiped out by any remedial agent, but it may be hoped that their percentage can be reduced if by proper cell stimulation at the right time, the weakened organism receives support which may help to turn the tide of battle. The logical consequence, therefore, is to begin the protein therapy as early as possible and, if feasible, to commence injections in any and every puerpera as soon as fever occurs. It is needless to say that many a feverish patient might be treated unnecessarily for we know very well that a rise of temperature often occurs without tangible cause and subsides spontaneously after a short while. The new blood sedimentation test may, perhaps, forewarn us in time, but on the whole we are unable to foretell future developments in a case of fever after childbirth; and so long as this uncertainty exists, a little extra caution is surely not out of place and far from being meddlesome. Several writers have even gone so far as to inject proteins prophylactically in all cases where a febrile puerperium might be expected from the nature of the confinement. Personally, I have every reason to value the effect of milk injections in all puerperal infections, mild or severe; and an occasional disappointment has not been able to shake my conviction. One only needs steer a middle course between the two extremes of boundless enthusiasm and skeptical nihilism to realize that complete exhaustion of the infected organism prevents response to any stimulation, and that dead or dying cells are incapable of any restitution.

Neither should one restrict the treatment of puerperal infection necessarily to this one new form of plasma activation, but other means of stimulation such as sunlight, fresh air, alcohol, and strengthening food should also be employed.

Of other febrile complications in the puerperium, I have seen very prompt relief by milk injections in several cases of pyelitis. In three cases of mammary abscess milk injections were made after incision and drainage, and I had the distinct impression that the extensive cavities cleared and filled up much more quickly than usual.

Contraindications: No remedy and no treatment is applicable in every patient. Protein therapy is strictly contraindicated in cardiac decompensation, diabetes, and alcoholism, perhaps also in pregnancy though sufficient evidence is not yet available. Petersen, of Chicago, whose name cannot be omitted in any discussion on protein therapy, enjoins great caution where there is a history of hypersensitiveness on the part of the patient (serum sickness, asthma, urticaria, angioneurotic edema) or of epilepsy or other grave nervous instability. Most important, however, are the state of the disease and the condition of the patient. It cannot be said too often

that in an advanced stage of an infection protein stimulation is unable to revive hopelessly damaged cells, and that, if applied in an utterly exhausted patient it may even hasten the end.

Lack of personal experience prevents me from expressing an opinion on proteins other than milk, but various writers have reported encouraging results with whole blood, different kinds of sera and vaccines, casein, etc.

Outlooks: The foregoing remarks have barely been more than a preliminary report. There is work for all of us to do in developing the latent possibilities of this new mode of attack on disease. Milk has seemed highly satisfactory; but there is no gainsaying that other protein substances might not be better in this or that type of infection. Nor is it at all unlikely that one substance might be found to be more efficacious in the beginning of the treatment and another later on. The dosage is still rather arbitrary and a greater refinement in determining the dose might well be expected in the future. Mistakes in the proper selection of cases for protein therapy will undoubtedly grow less frequent with increasing experience. One will be careful not to subject any and every case to this treatment, merely because little harm can come from it; and, even more important, one will be cautious not to bring discredit upon a valuable procedure by resorting to it in terminal stages of a severe infection or in patients who already are past the chance of recovery.

The conquest of disease by plasma activation opens up a veritable new land that we may explore with the optimism of hope and enthusiasm. We are bound to meet with failures, as in every form of human endeavor; but far more often shall we be rewarded by therapeutic successes.

SUMMARY

1. Nonspecific therapy of inflammatory diseases consists of the subcutaneous, intravenous or intramuscular injection of protein substances which are in nowise related to the causative bacteria.
2. Protein substances, thus introduced "parenterally," have the faculty of activating the protoplasm of all cells in the body and, particularly, of those cells which are engaged in warfare against the invading microbes.
3. This plasma activation serves to mobilize the natural defensive powers of the organism and to overcome the infection.
4. Of the various protein substances recommended, milk is most easily available and at the same time highly efficacious.
5. The method of sterilization, the mode of administration, and the proper dosage are described in detail in the foregoing.
6. In the field of gynecology, gonorrheal infection of the tubes and Bartholin's glands is most often amenable to protein therapy; in other locations of the infection the therapeutic result is less conspicuous.

7. Non-gonorrheal inflammations of the genital tract are also often cured by this treatment.

8. In the realm of obstetrics, puerperal infections, even of severe degree, frequently yield to nonspecific therapy with surprising rapidity.

9. In spite of its wide applicability, there are definite contraindications to protein therapy.

10. The new method is still in its earlier stages and capable of further development.

GLIOMA OF THE RETINA*

WITH CASE REPORT

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Glioma of the retina or neuro-epithelioma is a malignant tumor of the retina occurring in infancy and early adult life. The majority of cases occur in the first three years of life, and only one case of true glioma has been reported as late as the twentieth year. Of 467 reported cases, 314 were within the first three years; sixty-two in the fourth, and twenty-nine in the fifth year. It is probably congenital, as 10% of the reported cases are so proven, and due to the fact that these patients are rarely examined before the disease is fully developed, it is reasonable to consider that they all may be found so.

It has been found to be hereditary and familial. In Newton's family of sixteen children, ten (five males and five females) died of glioma. In Comes' family of eleven, five had glioma. Lerche saw four cases among seven brothers and sisters, and Wilson met with a family of eight, all of whom had the disease. A Smith family of eight is reported, five of the children had glioma and four of them died from it. The mother had had her right eye enucleated at the age of nine months, presumably for the same condition. Other than this, no etiology has been demonstrated. Usually only one eye is affected, but about 25% of the patients have had both eyes involved. In such instances the tumor has generally appeared in the two eyes consecutively, rather than coincidentally. In bilateral cases the tumor cells developed in each eye independently; they do not spread via the chiasm, nor by any demonstrable metastasis.

There is a tendency toward recurrence. The earlier the growth is removed the better chance there is to avoid this. About 13% recover after early operation. Unless the growth is removed it is nearly always fatal, and even with removal, if the tumor has broken through the globus opticus, the outlook is regarded as uniformly bad. If there is recurrence or metastasis the case is hopeless. When the tumor mass is not removed, it increases in size until the globe is filled. The

pressure so produced causes cataract, and by crowding the lens forward it obliterates the angle of the anterior chamber; glaucoma follows, and there is severe pain from the increased tension. The next step is the thinning of the sclera and the formation of ectasiae; the tumor breaks through the ocular coats, either by way of the limbus anteriorly or the optic nerve posteriorly. It seldom follows the emissaria. The growth follows along the optic nerve to the meninges and brain. It extends by either continuity or contiguity, or is carried by the lymph or blood streams. The process by extension is the more common.

The typical case has the appearance designated by Beer as Amaurotic Cat's Eye. This is because of the peculiar yellow reflex in the pupil. This reflex is usually the first indication that all is not well with the eye. The little patient cannot tell the parents that the eye is blind, although all tests prove it to be so. By focal illumination or by ophthalmoscopy there is observed a rounded yellow or reddish-yellow mass that may or may not have blood vessels on its surface. Often the pupil is dilated and fixed. There is no tenderness as a rule. Until there is an increase in intra-ocular tension from the forward pressure of the tumor, there is no pain; the child appears well, has the usual appetite, plays and sleeps naturally. The diagnosis is made on the history, appearance of the eye and tumor mass, peculiar reflex in the pupil, and blindness; and on the absence of pain, ciliary congestion, photophobia or tenderness. Opacities of the cornea and lens often add to the difficulties of examination. If the case is not operated and the disease breaks through the scleral wall, it presents the appearance of a granular mass which bleeds readily and is tender and painful. There are usually cerebral symptoms from the intracranial metastasis, the patient often has convulsions and coma, and dies of exhaustion.

The differential diagnosis is often difficult or even impossible. The so-called pseudo-gliomas are: detachment of the retina from trauma or serous exudate, sarcoma or tubercles of the choroid, cysticercus, organized fibrinous exudate, abscess or hemorrhage of the vitreous, tunica vasculosa lentis posterior and congenital connective tissue bands in the vitreous. In uncomplicated or simple detachment of the retina there is a history of trauma, illness or some ocular disturbance. A detached retina will likely show some movement when the eyeball is rotated; it lays in folds and commonly has a characteristic appearance. Choroidal sarcoma is of a dark color, and rarely occurs so early in life. Tubercle of the choroid is often yellowish-white, is made up of a confluent mass of tubercles and most frequently appears at the edge of the optic disc. The patient may or may not have the constitutional signs of the disease. Cysticercus is very rare in this

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country and is uncommon in children. An organized fibrinous exudate or abscess of the vitreous usually has an accompanying history that is pertinent; there has been an injury or some febrile disease, such as meningitis, which would give rise to metastatic infection of the uveal tract, and which would have been accompanied by the usual signs and symptoms of the antecedent condition. Often these diseases or injuries leave typical scars externally. Hemorrhage into the vitreous has a typical color and is accompanied by a history of injury or of external violence. Congenital remnants of the hyaloid artery and other fibrous formations do not usually affect the pupillary reactions. Any of the above signs may be present or absent and such confusion accounts for the cases incorrectly diagnosed.

The only safe treatment is early enucleation of the eyeball, with removal of as much of the optic nerve as is practicable. If there is evidence that the growth has broken through the sclera, the orbit should be exenterated because any extension outside the globe means recurrence, and recurrence is fatal.

D. M. C. Female, age four months, weight fifteen pounds, well nourished. She has always been a healthy, normal baby. Her parents are farmers; the father is twenty-six years old, the mother twenty-two. They have always been in good health, and their family history is free of any suggestion of cancer, syphilis or tuberculosis. The mother, a primipara, had a normal gestation and a normal delivery. There was no illness during gestation or lactation. She has had perfect health since the child was born. There has been no miscarriages. There has been no eye trouble in the family previous to this time. When the baby was three and a half months old the parents noticed a peculiar appearance of the right pupil. They consulted their family physician and he referred them to me.

The general examination was negative; no pathology was found except in the right eye, which was blind. The eyeballs were of equal prominence and their movements in the orbits were normal. There was no congestion in either eye. The tension was the same in both eyes. The irides were clear and of the same color and pattern, and both lenses were clear. The media and fundus of the left eye were clear and normal. The pupils were unequal in size; the right one was the larger, sluggish in reacting to light, and of a very limited movement. The left pupil was normal in size and reaction. The consensual reaction of the pupils was present, but the right pupil reacted very slowly. The right pupil showed a whitish reflex, while the left had the normal red reflex to light. Focal illumination of the right pupil showed behind the lens a yellowish, rounded mass, and upon the anterior surface of which could be seen three blood vessels and their branches. The mass seemed to occupy most of the vitreous cham-

ber; it was motionless and had a solid appearance. A diagnosis of glioma of the right retina was made.

The eye was enucleated at once. The patient made an uneventful operative recovery, and left the hospital on the fourth day. She has been under frequent observation for nine and a half months, or since January 30, 1925, and as yet there is no sign of recurrence. The child has grown normally, and has been in excellent health since the operation.

Dr. Rutherford has made the laboratory study of the specimen, and will discuss that at this time.

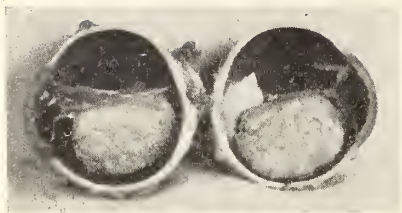
Laboratory Report. The specimen, received in formalin solution, measured 20x19x18 mm., and weighed 57 grains (3.7 gms.). Orientation, right eye ball. There was a bulging of the lower part, and misplacement of the insertions of the muscles; otherwise the surface showed no pathology. The cornea was horizontally oval, 11x10 mm. The anterior chamber was shallow. The pupil was round, 5.5 mm. in diameter. The lens was opaque, as occurs in fixation, and the anterior inverted Y was conspicuous. Nothing was visible behind the lens. By transillumination a mass was located in the lower part of the globe.

MACROSCOPICAL

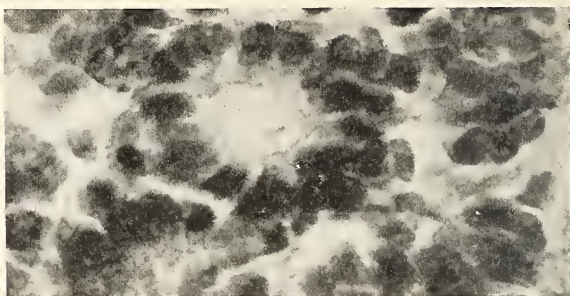
The globe was divided, without freezing, obliquely in the vertical plane. A quantity of thin watery fluid escaped. The photograph for Fig. 1 was made before the specimen was hardened in alcohol. A solid mass in each half of the eye swung free from detached retina. The sclera showed no changes except a slight thinning below. The cornea was thickened. In the right half the lens is protruded into the pupil, an artefact probably due to manipulation in embedding, as no part of it was in front of the iris when the globe was divided. The true position of the lens is seen in the left half. The cut surfaces of the cornea and lens show certain white spots which were not found in the sections. These were likely lime particles washed from the tumor (where they are seen also). The iris was crowded forward. The ciliary body was small, but regular in the *pars plicata*, and normal in the *pars plana* where the meridional striations were easily seen. No defects were found in the choroid, except a bleached area in the posterior part. The retina was attached only at the papilla and the ora serrata, and was the sole support of the tumor. The optic nerve was slightly enlarged or edematous.

The tumor measured 12 mm. antero-posteriorly, and 8.5 mm. in diameter. It was of a grayish yellow color, and both the natural and cut surfaces showed a cheesy or granular appearance. The natural surface suggested a capsule, which was not identified microscopically. The white points on the cut surface are calcareous deposits.

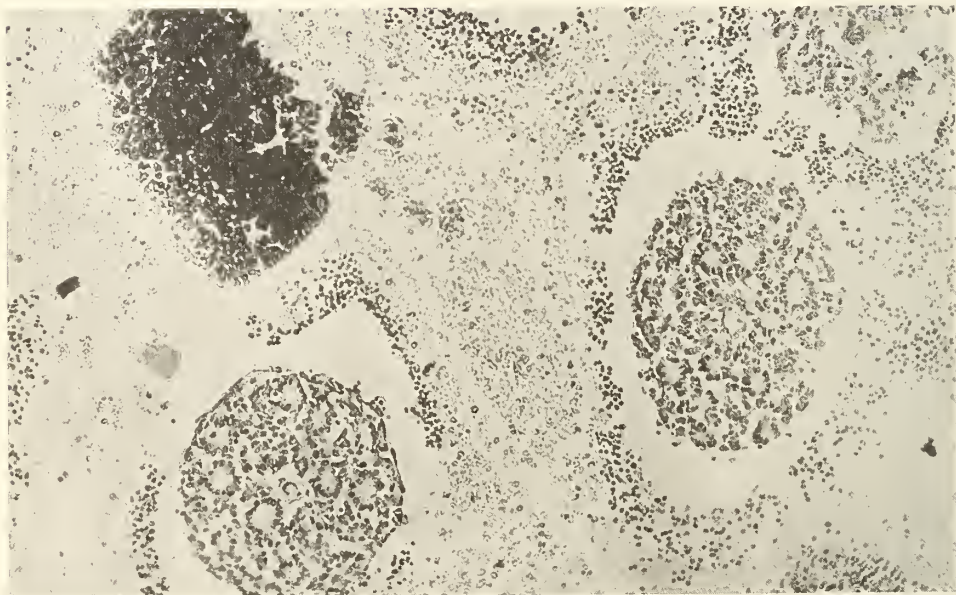
Differentiation: A tumor of the retina is merged with a detached retina, while the latter merely overlies any growth arising from the



1



2



3



4

Glioma of the Retina (Rutherford). 1. Tumor in Divided Eyeball. 2. Typical Rosette Under High Power. 3. General Structure of Tumor Under Low Power. 4. Relation of Tumor to Layers of Retina.

choroid. The exudate from metastatic choroiditis fills the vitreous chamber; when fixed in formalin it becomes translucent and takes on a delicate green color; the exudate shrinks in alcohol hardening. Subretinal fluid does not form a tumor. Embryonal connective tissue in the vitreous does not so completely detach the retina if at all, and would lie inside the retinal sac, as would a cysticercus.

MICROSCOPICAL

The halves were hardened in alcohol, and serial sections 6 μ thick were cut. Fig. 2 is a low power; it suggests the nature of the growth, and exhibits general relationships. Fig. 3 is a higher power; it demonstrates the presence of tubules, and they are seen to occur in groups. Each tubule is a blood channel without endothelium. Surrounding the blood column the tumor cells proliferate rapidly, forming a cell mantle around the tubule. The proliferative process crowds the older cells from the blood stream, until they are no longer sufficiently nourished. There is first a loss of the scanty intercellular substance, so that the cells fall apart, (Fig. 4), then the cells lose their cytoplasm, and later the nuclei disintegrate. So there is a gradual loss of staining power. As dissolution progresses areas of necrosis are formed, which stain faintly if at all. As necrosis proceeds to liquefaction, calcareous deposits are formed in these areas. If a cross section of a tubule is examined under high power, it is found to be formed of spoke-like cells containing little cytoplasm, and very large oval or oblong nuclei. The figure is called a rosette, and has not been described in connection with any other tissue except that found in gliomata of the retina, and in the retinae of some undeveloped eyes. The tips of the cells within the lumen unite to form a basement membrane.

The tubular character may exist independently of rosettes. A specimen from Prof. E. Fuchs' clinic in Vienna shows tubules and other glioma characteristics, but no rosettes, and was described (American Lecture Tour notes, 1922) as having had its origin from the inner nuclear layer of the retina (See also A. Fuchs, *Atlas Histopathology of the Eye*, 1924, plate 41, Fig. 2, and discussion). Knapp (*Intraocular Tumors*, English Ed., 1869) states that the nearer the origin is to the optic nerve the more abundant are the rosette (ears of maize) formations. That observation holds true for this tumor, as its origin was located 1.5 to 2 mm. below the margin of the papilla. This fragment has an appearance as though the main mass of the tumor had been torn from it, and a corresponding defect in the outer layer of the tumor was found in another section. This location suggests a probable origin from the rod and cone layer, and many investigators assert that only those tumors arising from this layer will show rosettes. Parsons (*Pathology of the Eye*) doubts the influence of the layer of origin

on this peculiar figure. Underlying the site of origin the choroid is greatly thickened by edema. Both the choroidal and retinal pigment are absent from this area. As these pigment layers are traced forwards, progressively better preserved fragments of pigment cells are found, and anteriorly the pigment is in a fairly normal condition. There is no true stroma in the tumor. An occasional trabecular band is seen, probably the cord-like remnant of a blood vessel. Some sections show parts of retinal vessels having endothelial linings. Parts of the retina are well preserved, enough to easily identify the various layers of it.

Metastasis. In part, the mode of transmission depends on the loss of intracellular substance and the liberation of individual cells. These tumor cells resemble those in the nuclear layers of the retina. If the free cell possesses viability and is deposited where it can be nourished, it may initiate a new proliferation. Thus, other ocular structures may become involved secondarily, or the cells may migrate to distant organs and tissues of the body. This process accounts for metastases at distances from the parent growth. The lymph stream is the principal carrier, although the blood stream may not be unimportant. In this specimen several small clumps of tumor cells were found lying on the choroid, and on other free surfaces inside the eye.

The choroid was macroscopically intact except at the posterior part, so no sections were cut to show the *venae vorticosae* or the *emissaria*. Accordingly no statement can be made as to their tumor cell content. The angle of the anterior chamber and the canal of Schlemm show no tumor cells. The pigment layer of the iris was in part adhered to the anterior lens capsule. This may have resulted from a low grade inflammation or from pressure between them. Otherwise the iris looks to be normal, the ciliary body may be considered so, and Descemet's membrane is healthy. The edema of the cornea may have been due to imbibition of fixation fluid, as the cornea was torn at one place. The lens shows the characteristic appearance after fixation and hardening.

Glioma of the retina invades the brain by direct extension along the optic nerve, or detached cells are carried there along the spaces of the nerve sheaths. No clumps of tumor cells were found in the nerve or in its sheaths in this specimen. In the central canal containing the central vessels, many isolated cells were found; these looked like lymphocytes. It is difficult to distinguish free tumor cells from lymphocytes.

The laboratory diagnosis is glioma of the right retina, limited to the eye ball.

DISCUSSION

B. D. RAVDIN, M.D. (Evansville): I would like to tell you of a baby that we saw first on September 24, 1923. The mother told us she had

noticed about six months before that the right pupil was quite gray; then she noticed a slight enlargement of the right eye continuously. She stated on the first visit that the left pupil seemed to be partly gray, but not altogether. On examination the pupil of the right eye was widely dilated, the diameter of the globe was enlarged. Examination with the ophthalmoscope showed a gray mass behind the right pupil. The diagnosis made was glioma in the right eye. The left eye seemed to be normal in size, but there was considerable discoloration of the sclera; it had a marked bluish cast. The pupil reacted promptly to light; ophthalmoscopic examination showed a small yellowish mass on the temporal side of the retina. We made a diagnosis of double glioma and advised double enucleation. She was referred to Dr. L. D. Brose for consultation, who confirmed the diagnosis and advised some sort of operative procedure, but the parents refused.

A year later that child was brought back. Tumor of the right eye had broken through the orbit presenting a ghastly sight. The left eye presented about the same picture that the right eye did a year before. At this time the parents refused operation and the last we heard the child died of exhaustion.

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APPLIED BIOCHEMISTRY*

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Every physician practices biochemistry, speaking in the broad sense, but more recently laboratory methods have become so simplified as to permit their more universal application in both diagnosis and prognosis, as well as in the control of the therapy. Therefore, realizing the supreme importance of making a correct diagnosis before therapy of any sort should be instituted, and acknowledging in advance the limitations naturally to be expected in the application of laboratory technic to clinical phenomena, it seems, however, that these methods when checked by careful anamneses and physical examinations are capable of providing a working basis for the objective data so necessary in the evaluation of results however attained, and especially those obtained by the more recently perfected physical methods of therapy.

The human body, viewed from the biophysical standpoint, is a complex multicellular electrochemical machine, which obtains its energy both directly and indirectly from its environment, with which it is in harmony or to which it remains well

adapted during health. Disease, then, is an inevitable result of the failure of the mechanism to adjust itself to environmental vicissitudes, whether these be caused as they usually are by the successful invasion of pathogenic bacterial flora, or by physico-chemical phenomena of purely endogenous origin. Since the body is an aggregate of cells, the function of these unit masses of protoplasm is of greatest importance, and whenever a sufficiently large number of them fail to function, to reproduce, to oxidize carbon, and to carry on their special functions of contraction, secretion or excretion as the case may be, gross aberrations of organic function become noticeable—and usually by manifestation through the vegetative nervous system, are interpreted as the symptoms of disease.

A brief epitome of recent works of Crile, Pottinger and others indicates that man, like the other vertebrates, is an energy transformer. The source of the energy is sunlight, and is utilized by living forms directly via skin receptors variously attuned to different wave lengths of electromagnetic energy (e. g. retina, Paciniana corpuscles, and sympathetic nerve terminals—attuned to visible light, heat and ultraviolet light respectively). Sunlight is also utilized by the body in the form of foodstuffs, cod liver oil, etc. In all these nutritional instances, the important desideratum is that the body receive the energy, which it usually does by those organs lining the inner, visceral or digestive tube and which are essentially anabolic or energy constructive organs so far as the body is concerned. They provide the body with potential energy, which is converted into kinetic energy and dissipated as such by the much larger, outer mass of cells, designated as the somatic tissues, or vasodermal system of organs and tissues. Physiologists describe the body as an efficiently operated reciprocal machine, whose functions are all rhythmic or phasic in character, and which counterbalance one another perfectly. Consider the heart as an example. Howell and others have shown that while the heart is ordinarily inhibited by vagus (parasympathetic) activity, this effect is absent if no potassium ions are perfusing through the myocardium. On the other hand sympathetic (accelerator) stimulation has the same effect as perfusion of calcium. Certain endocrine glands, to-wit those developed from the same primary germ layer as the sympathetic nervous system—the ectoderm—and specifically the adrenal and thyroid are notoriously cardiac accelerators. It may not be so well known that they are also calcium fixation agencies. On the other hand those glands developed from the endoderm appear to act along with the parasympathetics, and to displace calcium from somatic cells. The parathyroid, so recently advanced because of its role in increasing the blood calcium, as recently pointed out in the *Journal of the American Medical Association* (editorial) probably acts by depleting the calcium reserves in skeletal tissues, and hence should be

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counter-balanced by some antagonistically calcium fixing agency like thyroid, adrenalin, cod liver oil, or ultraviolet radiation either via direct sunlight or by a modern quartz mercury vapor generator. To recapitulate: the human body consists of two reciprocally opposed and co-ordinate masses of cells, an inner, visceral or digestive tract system, and an outer, somatic, or vasodermal portion. The former is concerned with the provision of potential energy, the latter with its kinetic utilization. The former is developed from the splanchnopleur, or union of endoderm with visceral mesoderm. The latter is developed from the ectoderm and somatic mesoderm, and designated by embryologists as the somatopleur. The visceral tube is activated by the parasympathetic omimetic neurochemical mechanism, consisting of the parasympathetic nervous system and the endodermic endocrines parathyroid and pancreas. The somatic portion of the body is activated by the sympathetotropic mechanism, composed of the sympathetic nervous system and the ectodermic endocrine thyroid and adrenal. A further reciprocal antagonism is present in that each portion of the body is inhibited by the mechanism which activates its antagonist. For example the heart is stimulated by the sympathetic mechanism, and inhibited by the parasympathetic, and the gastrointestinal tract is stimulated by the parasympathetic and inhibited by the sympathetic mechanism.

Some practical applications may clarify the above general academic consideration, and in this regard we quote briefly our own experience carefully checked objectively.

1. Metabolism as checked by the determination of the basal metabolic rate is increased by thyroid extract, adrenalin, and air cooled (environmental zoned) ultraviolet radiation. No increase or decrease from endodermic endocrines and short ultraviolet (extraenvironmental) radiation as from the water cooled lamp.

2. Blood calcium increased slightly by ultraviolet, and enormously by parathyroid. In one patient it reached 14 mg. per C. Lethal concentration in dogs is 15 mg. per C. In this case, that of an elderly man with paralysis agitans, parathyroidin, an aqueous extract of the parathyroid gland prepared by the method of Collip, and injected s. c. and checked daily by blood calcium determinations according to the modified method of Kramer and Tisdall, showed no clinical improvement until he was placed upon quartz light therapy. He has remained in *status quo* for the past two years on this treatment, his blood calcium remains about normal, 10 to 11 mg. per C. Hence although we can, for temporary purposes only, expect to accomplish much by a high blood calcium induced at the expense of the calcium reserves, in such cases as leg ulcers, unhealing wounds, etc., yet it would seem unwise to force parathyroid over a long period of time. This may be the reason why the pediatricians are so con-

servative in its use in spasmophilia, and in rickets, in both of which conditions ultraviolet acts practically as a specific. On the other hand in true tetany, as after operative removal, its exhibition is both logical and necessary, probably not so much because of the calcium metabolism as because of elimination of guanidine.

3. In many allergic phenomena such as hyperesthetic rhinitis, hay fever, bronchial asthma, and certain skin dermatoses the blood calcium is often low, and can be increased by ultraviolet radiation and the exhibition of catabolic endocrines. Calcium iodide has long been used empirically for these conditions, and more recently calcium and thyroid extract. I have found that whenever the blood calcium is low in these conditions marked clinical improvement follows ultraviolet radiation, and the blood calcium curve rises. After stopping the treatment, the calcium curve declines and remissions are apt to follow.

4. The hemoglobin curve as estimated by Dare hemoglobinometer shows a gradually rising curve especially if iron is exhibited by mouth or preferably by needle. The curve rises, in my opinion, much faster than if iron were used alone. The affinity of the red pigment hemoglobin for light may be explained by its close chemical relationship to chlorophyll from which it is possibly derived. Dissociation products of both these pigments are hemopyrrhol and hematic acid. Truly, as Max Loeb said, "Man—and all other living organisms—are slaves to light."

Two brief case resumes are given to show this influence:

Case 1. Obese, rachitic girl, one year old. No teeth. Temperature, 105; pulse too rapid to count, severe dysentery with dehydration and acidosis. Hb. 40 per cent Dare. Red cells 1,800,000. White cells 65,000 with almost leukemic blood picture. Treatment, actinotherapy and iron s. c. Glucose and limewater. At end of three weeks symptom free, four teeth showing, occipital hair more normal. Hb. 60 per cent. After six weeks Hb. 75 per cent, red cells 3,000,000. Allowed to return to home in distant part of state, but with the advice to take cod liver oil with iodide of iron and heliotherapy. She is now three years old and apparently normal in every way.

Case 2. Boy age five. Osteomyelitis entire mandible, with huge pus tumefaction both jaw and cheeks. Discharging sinuses into mouth and at each angle of the jaws. Toxic, anemic, almost moribund. X-ray showed no definite sequestrum. Teeth loose but alveolar process seemed viable. Prognosis almost hopeless. Systemic and local actinotherapy and nothing else—except care as to diet, and eliminations. After one month the inner sinuses closed, the teeth became firmer and nutrition improved. By the third month the jaws were more normal but pus still exuded in small quantities. Recently slivers of mandible have

protruded through the sinus tracts and were removed without anesthetic or curetting, and finally his *vis medicatrix naturae* has increased sufficiently so that a natural arthrectomy has been performed on the right side, the condyle, neck and part of the attached ramus of the mandible coming out in one piece and removed by the little patient himself. He now eats well, has no trouble in mastication, and is on the road to recovery. Due credit is hereby given to the referring surgeon for his conservative surgery and abiding faith in actinic light as the agency especially indicated for this type of case.

5. Blood sugar determinations show not only the expected high level in known diabetics with glycosuria, but also in many cases of chronic furunculosis, carbuncles and other pyogenic skin affections. The blood sugar while increased is usually under the normal threshold value of the kidney, but increased sufficiently to be of etiological significance. In this type of case systemic ultraviolet or any sympathetotropic agency whether electromagnetic or chemical is theoretically contraindicated. However, internal heat, as administered by a suitable high frequency current properly applied, as diathermy, will lower the blood sugar in many instances. I have seen the blood sugar lowered 25 mg. at one sitting, and 75 mg. after a week. The *modus operandi* is probably due to pancreatic hyperemia induced by thermal vasodilation, increased efficiency of the islands of Langerhans being obtained.

Case in point. Mrs. D., age seventy-eight. Carbuncle on neck two inches in diameter and one-half-inch deep. *Staphylococcus aureus*, arteriosclerotic nephritis, albuminuric retinitis, B. P. 210/110, pulse 100. Myocarditis. Her brother recently died of sepsis after surgical excision of a similar carbuncle. Urine -1008, albumen positive, casts positive, sugar trace, acetone trace. Blood sugar 145 mg. per C.

Treatment: Fulguration followed by gradually increasing current density until the whole mass was tediously electrocoagulated. No anesthetic except a small amount of novocain locally. Contents of carbuncle removed through drainage area size of a silver half dollar. Lightly packed and sent home from office in taxicab. Returned each day for diathermy and actinotherapy. Dismissed after fourteenth day with almost no scar. When last seen the urine still showed albumen and casts, the B. P. was 160/98, blood sugar 120 mg. per C.

SUMMARY AND CONCLUSIONS

1. The human body is an adaptive mechanism that is normally attuned to the environment in which it exists and from which it subsists.

2. Disease is biochemical maladjustment. The causes are either exogenous or endogenous, and in either case,

3. The symptoms of disease are usually manifested by aberrancies in function of one of two reciprocally reacting neurochemical mechanisms,

the sympathetotropic and the parasymphetotrophic.

4. Each of these mechanisms controls its own particular anatomical and physiological field of activity, and checks overactivity in the other.

5. Objective criteria based upon determination of metabolism, oxidation, mineral fixation, sugar metabolism, etc., are of great value in appraising the symptoms and signs of disease.

6. May we not hope that in the future, even simpler methods will become available whereby an even more critical analysis of these phenomena can be applied, and thus indicate the most rational treatment for the particular biochemical problem at hand?

THE USE OF CALCIUM SALTS IN THE TREATMENT OF TUBERCULOSIS*

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The publication of my first paper on this subject appeared in the January, 1915, issue of the *Indianapolis Medical Journal*.¹ In 1919 an article of mine was published in the *New York Medical Journal*² which included a report of 120 cases of pulmonary tuberculosis and two cases of gangrenous abscess of the lungs.

No other article upon this subject appeared in the medical literature, to my knowledge, until the June 28, 1919, issue of the *Journal of the American Medical Association*, in which Dr. Morris Fishberg,³ of New York, reported upon "Calcium Chloride as a Palliative Agent in the treatment of Intestinal Tuberculosis," giving the results obtained in seven cases of intestinal tuberculosis treated by the intravenous injection of a 5 per cent solution of calcium chloride. He states that his observation of the action of calcium chloride in diarrhoea of the tuberculous "warrants its recommendation as a valuable agent in the treatment of this condition."

Minor and Ringer,⁴ in January, 1922, issue of the *American Review of Tuberculosis*, in an article entitled "Intravenous Injection of Calcium Chloride in Intestinal Tuberculosis," reported thirty cases treated by this method. They state that their results convinced them that in calcium chloride we have a remedy which frequently palliates and relieves, and which, when we can diagnose our cases early, may even prove curative.

Soxthorp,⁵ *Ugeskrift F. Laeger*, Copenhagen, November 7, 1918, also reported similar results in the treatment of tuberculosis of the bowels by the use of calcium chloride given intravenously.

H. Maendl,⁶ of Leipzig, in the November, 1921, issue of *Zeitschrift fur Tuberkulose*, in an article entitled "Calcium in Treatment of Pulmonary Tuberculosis," presented his second report on the

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intravenous use of calcium in the treatment of pulmonary tuberculosis. He has given systematic courses of intravenous injections of calcium chloride to 250 patients, with a total of 4,000 injections. He ascribes to this treatment the subsidence of temperature in a number of rebellious cases, and says that the effect on the cough, expectoration, night-sweats and shortness of breath, was decidedly favorable.

Pottenger,⁷ in the February, 1924, issue of the *American Journal of Medical Science*, published an article entitled "A Discussion of the Etiology of Asthma in its Relationship to the Various Systems Composing the Pulmonary Neuromuscular Mechanism with the Physiological Basis for the Employment of Calcium in its Treatment," reporting upon the successful treatment of asthma by the intravenous use of calcium chloride. He makes the following observations: That in bronchial asthma he noted that the intravenous administration of calcium relieved both the bronchial spasm as well as bronchial secretions.

He further stated that since we now know calcium to be an integral part of the cellular structure, and that it is necessary to sympathetic nerve action, we have a basis for its use founded on rational biological principles. Calcium increases sympathetic action in the neuromuscular mechanism of the bronchi, vagus action is depressed or inhibited, and if the action is sufficiently strong the asthmatic paroxysm is relieved, and he further states that this same biological explanation serves to show how calcium exerts its beneficial effects in tuberculosis of the intestines, hay fever, acute rhinitis, and serum disease. In tuberculous enteritis it increases sympathetic action which antagonizes the vagus and relaxes the muscular tension, relieving the pain caused by it. It may have a beneficial effect on diarrhoea when present.

Van Scoyoc and Wehrbein, working during the last two years, have demonstrated that a proper combination of calcium with certain degradation products of glucose yields a product which is less toxic to animals than an equivalent amount of calcium given as calcium chloride. At the same time they discovered that this compound is much less irritating to the tissues, differing from calcium chloride in not causing extensive inflammation and sloughing should it by accident "spill" into the tissues at the site of the injection.

It is possible that the work of these investigators has produced a solution of calcium that may prove more suitable for intravenous use than calcium chloride. By the addition of glucose to calcium it is probable that the effect of this glucose combination, when administered intravenously, is received into the blood in a chemical state similar to that which enters the blood stream when calcium is administered orally, after it has been acted upon by the glycogenic function of the liver.

My own observation of the use of calcium in the

treatment of tuberculosis includes the treatment of 687 cases.

In many cases of tuberculosis, as well as in other conditions where calcium is indicated, its use by the intravenous method is contraindicated, such as in children, the aged, myo or endocardial disease, nephritis, and in cases presenting either high or low blood pressure. In these instances it will be necessary to give it orally. Calcium lactate is the preparation that has been generally used for oral administration. Calcium chloride is absorbed better and shows more constant increase in the plasma values.

The following formula has been found to be well tolerated by all patients, and calcium saturation is quickly and easily maintained by its use.

Calcium chloride, drams 5.

Dilute hydrochloric acid, drams 1.

Water, distilled Q. S., ounces 12.

One teaspoonful in a little water three hours after each meal.

The assumption that calcium is indicated in the treatment of tuberculosis rests upon the much debated subject—that there actually exists a calcium deficiency in the plasma of the tuberculous. In support of the claim that such deficiency exists, the following is quoted:

Sweany,⁸ in his report upon "The Alkali Reserve in Tuberculosis," *American Review of Tuberculosis*, May, 1923, in a study of the blood plasma of 262 specimens from adults having uncomplicated tuberculosis, concludes that his results may be considered negative as proving that tuberculosis is accompanied by an acidosis; yet he states that there is an indication that the general average of the tuberculosis has a slight tendency in that direction, and that the careful administration of alkalies, in the form of either food or drugs, will restore the normal alkali reserve.

One could not reach the depths of this subject without giving thought to the manner in which calcium is used by the organism in its effort to heal tuberculous lesions by that peculiar phenomenon, the deposit of compounds of this base in infected areas. We must consider primarily the chemistry of the tubercle bacillus, the chemistry of the tissues it invades, and likewise the chemistry of the compounds of this base, and by the correlation of these chemical entities we can better comprehend the process which nature is attempting to use in the arrest of the disease. Such a study will at least give us a better understanding of this process than that which now prevails. Universally, such terms as "calcification;" "liming up," and "walling off" are used. These crude terms refer only to the gross mechanical end results of the deposit of calcium in tuberculous areas, and give no thought to the purpose that the organism is attempting to accomplish. Therefore, it would appear that a study of this process should bring us closer to a definite treatment for tuberculosis.

If we consider carefully what happens in the development of a primary tubercle with its myriad of tubercle bacilli, surrounded as they are with their fatty acid capsule, it would appear that they must be able to change the chemistry of the immediately adjacent tissue from the normal alkaline state to an acid state, thus producing what might be called a localized acidosis. As the disease progresses this battle of acids and alkalies goes on until in the terminal stages we find the tide running fast in the direction of the acid state. It is then allowable to act upon the hypothetical assumption that this bacillus, with its marked fatty acid structure, is capable of producing a localized acid state in tissues which it infects. The assumption is then permissible that the organism does deposit calcium in these lesions, not for the purpose of walling off and calcifying these areas primarily, but it attempts to concentrate there an excessive amount of alkaline substance for the purpose of counteracting the effects of the acids of this bacillus upon the surrounding tissues. Therefore, if these deductions be logical, by supplying the system with an abundance of calcium we would aid in the production of a chemical state which is inimical to the environment of the tubercle bacillus.

Van Soyoc and Wehrbein state that one of the most striking results from the use of calcium in the treatment of tuberculosis is the change that is brought about in the tubercle bacilli in the sputum. These organisms, which possess the typical morphological character of the Koch bacillus before treatment is begun, soon become changed and lose, to a marked degree, their acid-fast character, retaining the carbol-fuchsin stain irregularly and becoming granular and fragmented. They also tend to occur in clumps as if agglutinated.

In the administration of calcium in the treatment of tuberculosis, two factors are essential to success. They are: Retention of calcium in the blood stream, and its fixation in the tuberculous areas. In many cases of tuberculosis in which calcium has been administered, no improvement has followed its use; this even in cases which should have been benefited. Until recently there was no explanation for these failures. Later, however, it was not only determined that in these cases there was a marked calcium loss through the urine, but that there was also failure of calcium fixation in the tuberculous areas.

In the work of Grove and Vine,⁹ London, *British Medical Journal* No. T-1922, page 791, in an article entitled "The Treatment of Indolent Ulcers," they made the same observations—that these ulcers would often heal when calcium was administered, but likewise some would not heal. They later determined that uniformly good results were obtained by administering parathyroid extract to prevent calcium loss, thus bringing the quantity of ionized calcium up to normal. Its cautious use in conjunction with calcium in the

treatment of tuberculosis for the same purpose is clearly indicated.

It will be well to give attention to the matter of fixation of calcium by asking the question: Why is it that in the skiagraphic study of the lungs of tuberculous patients with healing or healed tuberculous lesions, calcium fixation is always observed, in contrast to the fact that such fixation of calcium is not observed in the cases where healing does not occur? What are the factors that cause fixation in some cases and its failure to occur in other cases?

In a recent study of the relation of calcium to rickets, Shipley, Park, McCollum, Simonds, and Parsons,¹⁰ *Journal Biological Chemistry*, issue January, 1921, stated that "Ocular and conclusive evidence of the specific beneficial effects of cod liver oil on rats suffering with experimental rickets was found, in that some substance in cod liver oil caused calcium to be deposited in the same fashion in which deposition occurs in spontaneous healing in man."

Phemister, Miller, and Bonar,¹¹ *Journal American Medical Association*, March, 1921, observe that phosphorus and cod liver oil in some way restore the power of normal ossification which in rickets is temporarily lost. "In the case of cod liver oil," they say, "the results might be attributed to the presence of fat soluble vitamin A."

In the new light with which we now view the therapeutic value of cod liver oil as related to rickets, may we not conclude that the empirical use of this product in the treatment of tuberculosis has been misunderstood, and that its real value is not that it adds to the patient's nutrition and affords a means of maintaining body weight by its ingestion as a fat, but that in the preparation is to be found a substance which causes in tuberculosis, as in rickets, the fixation of calcium?

It has been shown that many of the most distinguished workers in the field of phthisiotherapy, both in this country and abroad, have become interested in the administration of calcium in the treatment of tuberculosis, and in not a single instance has there been reported unfavorable results. On the contrary, each has observed good results following its use.

As the years have gone by my opinion of the value of calcium as an adjunct in the treatment of tuberculosis has become more certain. However, it appears from a study of the current literature upon this subject that again it must be stated that calcium alone is not potent to cure tuberculosis, and that it must not be used to the exclusion of other agents. Just as in lues one would not think of using salvarsan to the exclusion of the iodides and mercury; or in diphtheria of giving anti-toxin without supporting a failing heart with digitalis or strychnine; or in malaria of giving quinine without the arsenicals.

We have attempted to explain the action of calcium in tuberculosis and to indicate means by

which its action can be controlled, causing its retention in the blood stream and its fixation in tuberculosis areas.

The administration of calcium should be supplemented with parathyroid extract, cod liver oil, vaccines to heighten immunity against mixed infection bacteria, and iron to combat the secondary anemia which is nearly always present. By these means it will be found that improvement in practically all curable cases will be rapid, and that results will be as satisfactory as those obtained in the treatment of any other disease.

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SALMON IN A DIET FOR THE PROPHYLAXIS OF GOITER

Norman D. Jarvis, Ray W. Clough and Ernest D. Clark, Seattle (*Journal A. M. A.*, May 1, 1926), state that red and chinook salmon contain four times as much iodine as butter. There are other sea foods, such as lobster and oysters, that are higher in iodine content than salmon. Indeed seaweeds have the highest iodine content of any foodstuff. But lobster and oysters are higher in price than salmon, and limited in supply. It has not yet been possible to induce the general public to use seaweed in any quantity. American canned salmon is a staple food, produced in quantity, and this, with its comparative cheapness and availability, renders it a very valuable food in a diet for the prevention of goiter. Indeed, it appears that the systematic use of sea foods which are rich in iodine would be of considerable benefit in treatment of simple goiter, or for its prevention in goitrous regions.

DOSAGE OF TOXIN FOR ACTIVE IMMUNIZATION AGAINST SCARLET FEVER

In a group of susceptible persons just as great or greater immunity was produced by C. C. Young and Paul F. Orr, Lansing, Mich. (*Journal A. M. A.*, May 1, 1926), with three as with five injections of scarlet fever toxin. The dosage suggested by the findings is 500, 5,000 and 30,000 skin test doses, respectively, with an interval of two weeks between injections. This method of immunization is now in routine use in Michigan state institutions. The time interval of two weeks is considered important, as there seems to be less systemic reaction and greater immunity produced than with the usual one week interval. Clinical and laboratory findings showed no injurious effects on the subject following the relatively large dose of toxin used in the third injection.

SURGERY IN PRESENCE OF DIABETES

E. Starr Judd, Russell M. Wilder and S. Franklin Adams, Rochester, Minn. (*Journal A. M. A.*, April 10, 1926), review the results of surgical intervention for associated lesions in 497 cases of diabetes in which 667 operations were performed, these being of a major type. During the last three years in the Mayo Clinic, operations have been performed, regardless of the presence of diabetes, on the assumption that the diabetes itself, if properly controlled, would not increase the risk of operation. For three years, therefore, no patient has been refused necessary surgical procedures because of diabetes. In very case there was frank diabetes, but in the majority of cases it was mild. One hundred and eighty-one operations were performed in cases of moderately severe diabetes, and in eighty-two showing a severe form. Ac-

cording to one classification, 119 cases were of the acute progressive type. In 158 cases the diabetes was associated with vascular lesions, in ninety-one with cholecystitis and pancreatitis, and in 199 with obesity. Fatalities occurred in about the same proportion in all these groups. None of the deaths were directly attributable to diabetes. In only a few cases was there postoperative acidosis. In six cases carcinoma was the chief or contributing cause of death; pneumonia was the contributing cause in eight cases, and septicemia in three. Major amputations for gangrene of the extremities were performed in fifteen cases and resulted fatally in one case. The healing of the amputated stumps was very satisfactory. In order to insure a good blood supply to the stump, the amputation was high, and the blood sugar was maintained at approximately normal levels by the frequent injection of insulin. Three of twelve patients who were operated on for carcinoma of the rectosigmoid or descending colon died. Death was attributed to poor healing of the bowel at the point of anastomosis, leakage and resulting peritonitis. Several years ago, the plan was adopted at the clinic of placing all patients with diabetes, both surgical and medical, under one service in the hospital, and this has probably contributed largely to the lowering of the mortality rate following surgical operations. Patients are treated both before and after operation. The co-operation of the surgeon in post-operative management is obtained in the medical ward. There is no opportunity for the interruption of the precise diet and accurate administration of insulin that should precede and follow operation, and difficulties arising from a division of responsibility that were encountered before this plan was adopted are eliminated. Purely surgical problems are left to the surgical staff for decision. These include, for example, the selection of the anesthetic. Patients with diabetes who undergo operations are very susceptible to acidosis, but the danger of such acidosis can be practically eliminated by proper treatment. Insulin is of great value in preventing acidosis, but does not replace other measures the value of which was proved before insulin was available. The healing of operative wounds proceeds without any greater delay than usual, provided diabetes is rigidly controlled. The healing of chronic ulcers or indolent wounds may possibly be stimulated by the direct application of insulin to the wound. Most patients with diabetes, particularly those requiring surgical procedures, are advanced in years, are overweight, and are suffering from advanced arteriosclerosis and other degenerative lesions which independently make the surgical risk serious. In view of these considerations, it seems to the authors that such patients should be referred for operation to one of the larger medical centers, where surgeons may co-operate with physicians who are experienced in the treatment of diabetes.

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Devoted to the Interests of the Medical Profession of Indiana

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EDITORIALS

HEMORRHOIDS

There is no abnormal condition of the human body that is more annoying, or a more fruitful source of complications than the common disease known by the laity as "piles," and unfortunately it is a condition that receives scant attention at the hands of a majority of the members of the medical profession. It forms a fruitful source of revenue for the quacks and irregular practitioners who hold themselves out as prepared to cure hemorrhoids, usually with the statement "without the use of the knife." Proprietary medicine manufacturers have reaped a harvest from "pile cures" in catering to that large class of sufferers who adopt self-medication. There is even a well grounded opinion prevalent in the minds of many people that members of the regular medical profession do not treat hemorrhoids, and in consequence relief is sought from an unethical practitioner calling himself a "pile specialist," or from the well advertised pile remedies. Perhaps the reason for this condition of affairs is that the average medical student receives scant instruction on the subject of rectal diseases, and this, coupled with the repugnance with which the average practitioner approaches a case requiring rectal examination, accounts for not only the incorrectness of the average diagnosis of rectal disease but the superficial and ineffective treatment prescribed.

Fortunately proctology is recognized as a specialty, and a growing number of medical men are being trained to care for the many medical and surgical rectal diseases efficiently and properly so that there is no longer excuse for encouraging or tolerating the sending of patients suffering from rectal diseases to the quack and charlatan. The irregular "rectal specialist" who promises the prospective patient that his rectal disease will be relieved without hospital confinement, detention from business, the employment of a general anesthetic, or the use of the knife or cautery, makes a wonderful appeal to the timid patient who has been worn out by the pain, discomfort and suffering incident to most ano-rectal diseases. These patients should be urged to consult the well-trained proctologists who are respected members of the medical profession and be assured of scientific and ethical treatment, without detention, confinement, or the loss of consciousness. Even the treatment of hemorrhoids in the hands of the gen-

eral practitioner who will take the time and trouble to secure a good working knowledge of the subject will bring about results that are extremely satisfactory in a very large percentage of the cases, and it is a duty that a physician owes to these sufferers either to give them intelligent and honorable attention or turn them over to someone who will.

Hemorrhoids are tumors or swellings produced by pathologic changes in the veins of the anus and rectum, accompanied by more or less infiltration of the surrounding tissues and hypertrophy of the anal skin. Most authorities agree that the predisposing cause is the erect position which man assumes, and the lack of valves in the rectal veins, causing the weight of the column of blood to rest on the veins of the lower rectum and anus. Anything which abnormally will increase this weight or the pressure on the vein wall will, of course, cause dilatation and enlargement. Constipation is an indirect cause, but more commonly the cause is the effort to relieve constipation by purgatives. Thus the unnatural straining, and the irritating liquid stools caused by cathartics is responsible for more cases of hemorrhoids than the constipation itself. Other factors in causation are lack of exercise or anything which causes a congestion of the portal circulation. Bleeding from hemorrhoids is a common symptom, and rectal specialists make the point that a diagnosis should not be made from this symptom alone, for it may be necessary to exclude beginning malignancy. Furthermore, in every case of anemia it may be well to inquire as to whether the patient is suffering from bleeding hemorrhoids, as the anemic symptoms may come from loss of blood which will be corrected when the hemorrhoids have been given appropriate attention.

Of especial importance is the question of diagnosis, and the physician should not be content with the assumption that the case diagnoses itself, or be satisfied with the diagnosis made by the patient and then prescribe empirically for the trouble. Each and every case deserves and should have the advantage of modern diagnostic methods employed in connection with a complete examination of the rectum and the lower sigmoidal cavity. This examination can be accomplished without pain or marked discomfort, and with dilatation of the sphincter only sufficient to give an ocular inspection of the lower bowel. In patients of middle age or over, bleeding hemorrhoids should make the physician suspicious of malignancy. Through the introduction of local anesthesia not only examination but treatment is made painless, and if the public were more generally informed concerning this matter there would be much less tendency on the part of sufferers to consult the quacks and charlatans whose chief stock in trade is treatment of hemorrhoids without general anesthesia, the use of the knife, or confinement.

At best the treatment by the advertising quacks and charlatans is only palliative, and that treatment can be employed by any physician. It is not a cure, though it may give temporary relief. The so-called radical treatment is not so radical as its name would indicate, and it, too, can be employed successfully by the general physician who will take the trouble to acquaint himself with the technic required for successful results.

The point we desire to emphasize is that the great army of sufferers from hemorrhoids not only should be discouraged from placing themselves in the hands of the quacks and medical pretenders where their condition often is made worse rather than better, but that the average general practitioner should be encouraged to pay more attention to the diagnosis and treatment of these affections. This will mean more and better instruction of medical students concerning rectal diseases and what treatment offers to a great army of sufferers when intelligently applied.

THE KOCH CANCER CURE

About seven years ago William F. Koch, of Detroit, less than a year after his graduation from the Detroit College of Medicine and Surgery, announced that he had developed a specific cure for cancer. Since that time the "cure," which Koch claimed would destroy the cancer germ, has been extensively advertised to the public as well as the medical profession, always with optimistic promises of satisfactory results. As quackery usually thrives by imposing upon the credulous among those having serious and incurable diseases, so the Koch cancer cure brought to its discoverer and exploiter a volume of business that no doubt has fattened his pocketbook handsomely. The nature of the so-called cure has been kept a secret by the astute Koch, and not even the quacks in the medical profession who have been employing the Koch treatment are familiar with the nature of it. At different times the reputable physicians of Detroit, through their local medical society, have appointed committees to investigate the Koch cancer cure, and each time reported not only unfavorably but condemned its exploitation. In the last report the statement is made that in no case where the diagnosis of cancer was absolutely established, and where no other form of treatment had been used, had there been a decided benefit from the use of the Koch cure. The *Journal of the A. M. A.* has investigated the subject, and from reports corroborated all that was said by the report from the medical societies in Detroit concerning failure of the Koch cancer cure to produce any decided benefit. In some instances the administration of the Koch cure apparently hastened the cancer development, and in a few instances it is possible that the Koch cancer cure may have hastened a fatal result. However, in spite of these trustworthy findings, and an outspoken ex-

posure of the fakery in numerous articles appearing in the *Journal of the A. M. A.*, reprints of which may be obtained by anyone, Koch continues the exploitation of his cure, and as an aid to the exploitation he recently has established what he terms the Koch Cancer Foundation, with seven medical men, practically all of whom are proven to be arrant quacks, as organizers of the Foundation. With this new development in the exploitation of the Koch cure, a Bulletin has been issued which is widely distributed to the medical profession and public. As might be expected this Bulletin contains a deceptive and misleading statement concerning the character of cancer and what has been accomplished by the use of the Koch cure in the destruction of what Koch calls the cancer toxin. Then there are the histories of numerous cured (?) cases of cancer, the diagnoses of which probably were made just as such diagnoses are made by any other notorious cancer quacks by attaching the name of cancer to many non-malignant affections. On the second page of the May Bulletin appears "a message to the family physician," in which it is boldly stated that the Bulletin prepares the general practitioner "to treat his cancer cases successfully with an anti-toxin as he treats his diphtheria cases." Then the statement is made that the Koch cure is successful in at least 70 per cent of the cancer cases still alive, and in the other 30 per cent good results are not expected because such cases already have been heavily x-rayed and radiumized, and a few already are on their deathbeds. The vicious and untrue statement is made that the x-ray and radium specialist has increased the cancer mortality. In the editorial pages a plea is made to sustain the Foundation by seeking membership and furthering the use of the Koch remedy. The *Journal of the A. M. A.* is authority for the report that there is a contract between the Koch laboratories and the Koch Cancer Foundation whereby the Koch cure will be distributed through the Foundation only to its stockholders and members. Then the report goes on to say that the price of the treatment from the Foundation shall be \$110 to both stockholder and member. Then it is reported that the Foundation specifically has a minimum of \$300 for the first treatment, and \$200 for any afterward. Concerning the pecuniary end of this fakery we quote from the *Journal of the A. M. A.*, May 8, 1926, the following:

"The by-laws of the Koch Cancer Foundation provide that only physicians 'whose qualifications have met the approval of the Board of Trustees' and who have 'treated ten or more cases of cancer by the use of Koch's Synthetic Antitoxin' shall be eligible to become stockholders. The stockholders pay \$100, for which one share of stock is issued. 'Membership' in the Foundation is to be limited to physicians who are 'able to furnish personal and

business (Italics ours.—Ed.) references satisfactory to the Board of Trustees.' Such individuals may become members on the payment of a membership fee of \$10 and annual dues of \$5. Dr. Koch states further that in addition to the funds that will come into the treasury of the Foundation from the sale of treatments, membership fees and annual dues, he expects to purchase 'upwards of \$50,000 worth of stock.' It is stated further that the 'foundation' will from now on 'attend to sending out all publicity, pamphlets, literature and the like' and that it is sufficiently financed to carry on the work vigorously for some time to come.

"The publicity activities of the Koch Cancer Foundation have already begun to function. The press agent seems to be one V. E. Scott. Mimeographed material is being sent out from New York to the newspapers of the country, prepared in the form of news articles for 'immediate release.' The headlines are so worded as to catch the eye of any who may be interested in the subject of cancer and especially so as to disguise the advertising feature of these unpaid advertisements. Some of the claims that the newspapers are asked to print in the form of news regarding the Koch treatment are:

"Dr. Koch's antitoxin has successfully cured more than eighty per cent of hitherto hopeless cases."

"One injection is all that is needed in ninety per cent of the cases. We have found that the antitoxin cures every form of cancer and does so with remarkable speed."

"... the Koch Cancer Foundation, whose physicians have successfully cured more than eighty per cent of hopeless cancer cases during the past two years with the antitoxin discovered by William F. Koch, Ph.D., M.D., of Detroit."

"Here, then, is a piece of publicity material puffing a commercially exploited secret remedy which the newspapers of the country are expected to broadcast without charge. In this, a public that is ignorant of the facts is told that a 'former professor of the University of Michigan' (which Koch never was) has a remedy for cancer that will cure 80 per cent of hopeless cases with a single injection!"

There is plenty of evidence to show that the "Koch Cancer Cure" is practically worthless, and that Koch and his satellites are quacks and impostors, for they are following the most damnable practice of preying upon sufferers who need the advice and the attention of honest and capable medical men who will not deceive and rob them for commercial gain. If there are any Indiana physicians who have the slightest tendency to swallow the bait offered by Koch, or his Foundation, we suggest that before procuring the nostrum and deceiving and defrauding the patient through its use, the various pamphlets exposing the whole business be procured from the Bureau of Investigation of the American Medical Association.

PHYSICIANS ATTACKED FOR NOT GIVING

A Community Chest speaker at a recent Community Chest luncheon in San Francisco drastically criticized the doctors, among others of the "semi-rich" or "great middle class," for not "coming across" with more money for the "chest." Newspapers quote the speaker as saying:

"It is the big class of professional and semi-rich. It is the lawyers, doctors, dentists and other professional men who send their office assistants out to talk to those who are devoting their time to collect the funds needed to adequately care for San Francisco's needy.

"We should shame these people into giving. If they knew that a list of those subscribing was to be published, they would feel obligated to come across. I become blind with rage when I know the needless obstacles our workers are meeting."

The reaction against this tirade was prompt, widely spread, and the end is not yet. As has been repeatedly published, the doctors of San Francisco and elsewhere as well, give to charity in *service*, figured as nominal value, every year more than the entire collections of the Community Chest. Doctors don't want any special commendation for such helpfulness. It is part of every day's work with every one of them; but they do resent deeply and widely ill-advised criticism of the kind mentioned.

One of the most prominent and most beloved physicians in the city informs us that on the very day that doctors were being publicly attacked at this chest luncheon, he saw nine poor patients in his office, and performed major operations upon two persons, none of whom would ever receive a bill for either medical or hospital services. Incidentally, the hospital thus giving its charity is one dismissed by that notorious Haven Emerson "survey" for the Community Chest as "commercial" and, therefore, by implication beyond the pale. According to the statements of certified public accountants, that hospital rendered free service to the poor last year that cost them over \$75,000 to give. Other similar stories of individual and group interests in the welfare of dependent citizens could be told and verified—but what's the use?—*California and Western Medicine*.

What occurred in San Francisco probably occurs in many other localities, and it is high time that medical men offer resentment to the implication that they do not donate sufficiently to charity when, in reality, they give in money equivalent to charity more than anyone else in any vocation. It always makes us "blind with rage," using the San Francisco speaker's expression, to have some professional money raiser or solicitor, drawing a fat salary for his services, come into our offices and tell us what we ought to give for charity, usually an impossible sum, and insinuate that we are derelict in duty if we do not subscribe what

he thinks we ought to give. The same is true of various committees of business men and women who call upon us in the interests of some charity or philanthropy and complain if we do not give liberally and beyond our means. Usually these soliciting committees boast of what they are doing for the cause because they give up a few hours of their time in calling upon prospective donors to a Community Chest or some other charity or benevolence, and sometimes these very solicitors, just as able or perhaps more able to donate actual money than is the physician, will consider the time that he gives to the soliciting as being a sufficient donation from him. We sometimes feel that the way to meet these soliciting committees is to say to them, "Yes, I will donate to the cause, but I expect the Community Chest to pay me and every other doctor for the services rendered to the poor just as the Community Chest pays the merchants, the public health nurses, and in fact everyone who does anything for the poor. The truth of the matter is that the average medical man is imposed upon from every side, and he doesn't get credit for his benevolences which he grants cheerfully and without asking for reward. The next time a Community Chest campaign is on and at the noon-day luncheons, when canvassers take the liberty of openly criticizing citizens who do not contribute as liberally as expected by committees, and when doctors are made the basis of criticism such as that occurring in San Francisco, a representative of the medical profession should be on hand to point out definitely and clearly just what the medical profession has donated to charity in actual money and services of money value, and how it compares with the donations of those who are posing as critics. The facts will prove interesting.

THE COST OF HOSPITAL AND MEDICAL SERVICE

Several medical societies in the East are investigating the costs of hospital and medical service in private practice, as well as the abuses of medical charity, and the results are not only interesting but worthy of serious consideration with a view to correcting some of the existing evils. In a report by the Committee on Dispensary Development of New York City the basic statement is made that the ability of the patient to pay for medical services depends upon the duration of the illness and the type of the disease as well as upon the family income and responsibilities. In actual practice the ability to pay oftentimes is not given serious consideration. In New York City it is estimated that the ability of a family of four or five members with an annual income of twenty-five hundred dollars would not be over two hundred dollars in a year to pay for the care of the health, including bills of doctor, dentist, nurse, hospital and medicines. This may be sufficient to cover illness involving light expense, but some of the more

severe conditions would entail an expense of perhaps five or six times that amount for a single illness. This means that the family necessarily must go without adequate care or give up or curtail something else that is regarded as essential. It is evident, therefore, that some means of apportioning the expense must be adopted if patients are to have adequate care and pay anything like reasonable fees for the service. Not the least expense incurred is that connected with hospitalization with its mounting charges for nursing, laboratory work, and other special attention. In fact, altogether too often the patients scarcely can pay for the hospitalization alone without giving the slightest consideration to the fees of the attending physician. It is a strange twist of human nature that will cause a patient to pay his hospital and nursing bill in full and expect the attending physician to render his services with little or no compensation. Some patients have no hesitancy in asking the doctor for a reduction of fees, and these patients not always are the ones who need the reduction. On the other hand there are many self-respecting patients who can pay moderate fees and prefer to do so if they know how to secure efficient medical care at a cost that they can pay without sacrificing other essentials. The problem, therefore, is to find means of furnishing medical attention and care to a large proportion of our population that find the expense of illness a financial burden that can not be met at all or at least only in part. Under existing conditions our charities are abused, and our medical men are imposed upon shamefully by individuals as well as institutions. More attention must be given to the investigation of the ability of patients to pay in order to weed out those who are taking advantage of charity and imposing upon generosity. Furthermore, an effort should be made to cut down some of the unnecessary expenses attendant upon hospitalization and care. At present there is altogether too great a tendency on the part of hospitals to subject the patient to laboratory and other examinations and treatment that are unnecessary, expensive, and oftentimes not ordered by the attending physician, as there also is too great a tendency to require unnecessary special nursing with its added expense. In fact, the average patient, able and willing to pay ordinary fees, too often is subjected to the necessity of a special nurse at large expense when ordinary nursing would be quite as satisfactory and less expensive. It is a well known fact that physicians very generally reduce their fees or donate them altogether in many cases where the patient is able to pay something, and the hospitals and nurses get all the remuneration. Some reliable method should be adopted for ascertaining the patient's ability to pay, and we should study the feasibility of providing some less expensive means of providing nursing care, laboratory and special

therapeutic services. Furthermore, as pointed out by the report to which we have referred, hospital and dispensary facilities, available to the medical profession for their patients, should be so safeguarded that the personal relationship of doctor and client will not be disturbed, and they should be so conducted that the cost will materially reduce the total expenditure for sickness without the sacrifice of the physician's fee.

FEEES IN INDUSTRIAL CASES

At a meeting of insurance adjusters the statement was made that one of the greatest difficulties encountered in the settlement of bills for medical services in industrial cases is the dishonesty of a good many doctors in attempting to charge for something not done or to pad the bill with charges for unnecessary visits and dressings. From first-hand knowledge of the facts concerning medical bills rendered in some of the industrial cases, we are quite willing to believe that a few doctors are as crooked as a pig's leg, but when we come to the conditions which have brought about an exhibition of crookedness we find that the cause generally is found in the desire as well as the intent on the part of insurance adjusters to effect by persuasion or force the acceptance of ridiculously low fees for all medical and surgical services rendered in industrial cases. Some of the better trained and more experienced physicians refuse industrial work for this reason, and that often prevents the industrial workers from receiving the attention deserved, as it also proves to be costly to the insurance carriers. If the medical man doing industrial work finds that his services are classed as piece work, at so much per piece, and at a ridiculously low price, it is but natural that some of the medical men with elastic consciences or a desire for revenge will force unnecessary attention upon the industrial cases for the distinct purpose of padding the bills. We believe that when the insurance adjusters arrive at the conclusion that good professional services are worthy of decent compensation, and without wrangling over the amount charged, there will be no difficulty in securing not only the best service but at a cost that is in keeping with the cost of service in private practice, and at a great saving to the insurance carriers. In discussing the whole matter at a meeting of adjusters and representatives of our State Medical Association, the suggestion was made that in all probability the companies would be satisfied to submit controversies concerning bills for professional services to a committee selected by our Association. This would be a very satisfactory solution of the problem, for we know that such a committee, composed of reputable men as we are sure it would be, would rule impartially. In fact, it would mean that such a committee would not approve the cutting down of decent fees for services in industrial

cases, nor would the committee stand for any dishonesty on the part of the few members of the Association who might think that they could get away with it. This whole question is going to be settled satisfactorily in a very few months, and we believe that we shall have our Committee on Civic and Industrial Relations to thank for the outcome.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely free to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve you.

HARVEY CUSHING, the well known brain surgeon of Harvard University, has been awarded the one thousand dollar prize for the year's best biographical volume teaching patriotic and unselfish services. The award is based upon Cushing's "Life of Sir William Osler."

WE are pleased to know that Senator Watson has been renominated as a candidate for the long term in the Senate, as he has been a consistent friend to the medical profession in all its endeavors and if elected can be depended upon to continue as a supporter of medical aims and ideals.

THE public should be interested in preventing unqualified men from obtaining the privilege of assuming the responsibility for life and death. This should be emphasized in our efforts to prevent the lowering of any of the standards pertaining to medical education and practice.

THIS is the season for baby shows. We never have felt that baby shows as ordinarily conducted do very much good, but if we are to be plagued by them, by all means let us have them under the auspices of our medical associations and conducted free from commercialism or the exploitation of any individuals.

INASMUCH as a few people of Indiana have been swindled by the Koch cancer cure satellites, we have deemed it entirely appropriate to deal with the subject editorially in this number of THE JOURNAL. Such a species of quackery as the Koch cancer cure should be denounced as a fraud and dealt with legally.

THE anti-vaccinationists are attempting to secure an anti-vaccination law in Ohio, and we may

look for a similar effort in Indiana. It is well to be prepared, as it also is well to remember that anti-vaccinationists will not hesitate to distort, misrepresent, and even falsify evidence, and at all times they cater to prejudices and hatreds.

It remains to be seen just how tight a hold party politics has upon doctors, and the story will be told when the votes are cast in November. We hope that a very large percentage of doctors of Indiana, irrespective of party affiliation or belief, will refuse to vote for candidates for the legislature who are opposed to the aims, objects and the practices of organized medicine.

THE patriarch of the Indiana State Medical Association, Dr. G. W. H. Kemper, of Muncie, visited THE JOURNAL office last month. He is eighty-seven years old and shows few signs of physical or mental deterioration. He still takes an active interest in medical affairs. He has our best wishes for a continuation of his present mental and physical activities.

THE Committee on Civic and Industrial Relations is doing some real constructive work which will be of great value to the individual members of our Association. There is no part of the medical man's work that causes so much contention and dissensions as the settlement of accounts for services in industrial cases. Our committee is paving the way for a very satisfactory solution of the problem.

THE old question of the economic side of the practice of medicine is beginning to receive some attention on the part of our medical organizations in the hope that a discussion of it will stimulate the individual members to adopt more effective means of dealing with the purely financial side of their work. Even the American Medical Association is beginning to consider the matter, and the findings and recommendations will prove interesting and worth serious consideration.

At a very early date we shall announce our plans for giving the doctors of Indiana the advantage of a package library. This enterprise, which will be conducted from the Bloomington office of the Indiana University, contemplates loaning the members of our State Medical Association medical journals and medical books. It is only one of several new features that our Association is carrying into effect for the benefit of its members.

IN Indianapolis there were thirty-eight candidates for nomination as state representative on the Republican ticket, and one of the candidates is the head of a chiropractic school and had the endorsement of the League for Medical Freedom and

the Christian Scientists—twin brothers in opposing scientific medicine. He was overwhelmingly defeated. In some localities candidates favorable to the cults received the nomination and without much opposition. It may take some hard work to keep such fellows out of the legislature, but it ought to be done.

W. E. EICKHOFF has been nominated as a candidate for Congress in the Twelfth congressional district. Eickhoff's record in the state legislature was bad insofar as he opposed almost everything desired or upheld by the regular medical profession. He is an avowed supporter of the chiropractors, and is an opponent of legislation that will protect the public from quacks and medical pretenders. It should be the duty of every regular practitioner in the Twelfth congressional district to work to defeat Eickhoff, as his influence in Washington can not be anything but pernicious.

This number of THE JOURNAL will not be received by approximately five hundred careless and indifferent doctors who have not paid their medical society dues. In reality we are pleased that the postal regulations demand that we do not send THE JOURNAL to delinquents. If any county medical society secretary, or anyone else, hears a complaint to the effect that someone is not getting THE JOURNAL, it will be a safe bet to decide that the complainant is delinquent in payment of dues that should have been paid not later than February first of this year.

THE Terre Haute Academy of Medicine when inviting guests to a dinner announced that music, dancing girls, and humming birds would be provided. The announcement was sufficient to arouse curiosity, and in consequence we are told that the invitation brought out a large attendance, though Dr. George W. Crile, of Cleveland, the speaker for the evening, must have felt a little chagrined to think that anything but himself had to be offered to encourage attendance. Perhaps music, dancing girls, and humming birds is a feature some of our medical societies need in order to brace them up. The suggestion is offered to a few dormant medical societies.

THE Life Extension Institute, Incorporated, of New York City, is attempting to regain its lost prestige by working on the sympathies of some of the prominent members of the profession in telling them not to pay attention to the disturbers in the American Medical Association. Thank fortune the American Medical Association, whether it is stirred to action by the medical bolsheviks or not, is beginning to realize that certain lay organizations have been trying to traffic in medical services, and is pointing out to the medical profession the

dangers of a policy of that kind and advocating the very just policy of encouraging individual members of the medical profession to deal directly with patients and not through an intermediary.

AN Indiana doctor gives as his excuse for not belonging to a medical society that he can not take time to attend the meetings, and that he gets along very well without identifying himself with medical organizations. He forgets that were it not for medical societies and their constructive work it would not be possible for him to practice medicine with any degree of success, and that all of the scientific progress and the improved economic conditions under which he labors have been due to the work and the influence of organized medicine. He ought to be ashamed of himself for not joining organizations that help to make conditions for him better every day.

SOME of the medical societies in Texas are carrying display advertising in the daily papers giving trustworthy information concerning medical topics. There is one feature of their advertising campaign which we think might be used profitably in any state, and that is the publication of the names and addresses of all of the regular licensed practitioners of medicine together with the announcement that those named have complied with the requirements of the law. Such a list could be prefaced with a brief statement concerning the requirements for the practice of medicine, emphasizing the statement that the requirements, include a knowledge of the fundamental branches of medicine and surgery.

WE have been favored with an invitation to attend the commencement exercises of the Middlesex College of Medicine and Surgery. This is the institution that was not recognized by the American Medical Association, and it is the institution that threatened the American Medical Association with a suit for damages as a direct result of being disqualified as entitled to a rating that would place the institution among approved medical schools. Perhaps the Middlesex College of Medicine and Surgery has seen the handwriting on the wall and has begun to improve its condition with the idea of receiving the coveted approval. Let us hope so. In the meantime prospective students should remember that the institution is not on the approved list.

IN the correspondence department of this number of THE JOURNAL we publish a letter from a prominent member of the Association calling attention to the necessity of maintaining or even raising the dues to our Association in order to carry on the various activities in an effective way. Really, we fail to understand why any member of the Association should think for a minute of low-

ering the dues. At the present time we are carrying out a constructive program that means much in advancing all of the interests of organized medicine, and it really is surprising to note what is being accomplished in consequence of the funds available through the receipt of dues from the membership. Any agitation concerning the amount paid as dues should be in the direction of raising rather than lowering them.

A LEADING newspaper of Indiana, the general advertising policy of which we heretofore have had occasion to defend, is reported to have changed ownership recently and with it there has been some change in the conduct of the business end of the enterprise. Formerly this newspaper probably was the cleanest in Indiana as pertains to the acceptance of quack and deceptive medical advertising. However, at the present time the old rules seem not to be in effect, for the paper is beginning to blossom out with a good deal of deceptive medical advertising that formerly was rejected. It puts us in mind of the parody on Mary's lamb, which goes something like this:

Mary had a little lamb,
Its fleece was white as snow,
She took it to Pittsburgh one day
And now look at the damn thing!

WE do not seem to hear anything more about the suit against the A. M. A. for several thousand dollars damages by a discredited medical college that sought to get into the limelight by that sort of a grandstand play. Fortunately the A. M. A., through its Board of Trustees, is not easily frightened and never stampeded. Innumerable damage suits have been threatened, and only one or two have come to trial, but as yet the Association has not lost its position as a National advisor against incompetency and deception as it pertains to any phase of the practice of medicine or to public health. We ought to be proud of the bold stand that has been taken by the Association in openly exposing trickery and fraud on the part of those who would profit at the expense of the ills of humanity, or who would lower any of our standards pertaining to the practice of medicine.

AN English labor leader on a tour of investigation has discovered that the laboring man in the United States not only receives much higher wages but actually works fewer hours and more leisurely than the laboring man in England. He could have learned that without making a special trip to the United States for the purpose, as anyone who pays the bills in this country could have furnished evidence to substantiate the fact that the average American mechanic or common laborer spends a large portion of his time in efforts to secure increased pay and at the least expenditure of energy. What we need in this country,

as proposed by Henry Ford, is education on the subject of how to work and not how to shirk. In other words, the American laboring man needs some sort of stimulus that will make him deliver a dollar's worth of service for a dollar in pay.

A WOMAN physician gave as her excuse for not joining a county medical society that she was not acceptable because she continued to hold free clinics for the schools, churches and other organizations, and that her work would not receive the approval of the local medical society. Thank kind fortune that we have a medical society which will put its stamp of disapproval upon this "grand-standing" on the part of a few doctors in holding free clinics which are not conducted for the purpose of helping the indigent or the poor, or primarily intended to advance public health interests, but in reality are conducted to exploit the physician at the head of them. This free clinic business is being sadly overworked and should come up for discussion in sessions of our State Medical Association with a view to straightening out some of the practices which are detrimental to the public and profession alike.

WE desire to remind county medical societies of the advisability of adopting a fee bill applicable to the individual counties for the guidance of the industrial board in making adjustments in compensation cases. Every county medical society, in revising its fee bill, should adopt those fees that are consistent with the services rendered and present day economic conditions. The doctor who made an ordinary town visit for \$2.00 in 1910 should not be expected to make that charge in 1926 when the cost of living and the price of services of every kind is twice, three times, and occasionally four times what it was in 1910. However, as a guide for the industrial board, a fee bill should be adopted, and the matter ought to receive prompt attention as it will go a long way toward solving the difficulties for not only members of the medical profession but the industrial board as well in adjusting compensation cases.

MANY lay persons like to accuse medical men of disagreements and quarrels concerning important as well as unimportant medical theories or practices, and seem inclined to think that the medical profession is the only one engaging in strife. However, the medical profession can not hold a candle to the religious sects, and right now there is a bitter fight raging between the so-called fundamentalists and the modernists concerning evolution and various other beliefs as to interpretation of the Bible. Some of the worst wars in history have occurred as a direct result of religious intolerance or bigotry, and when we note the bitterness with which the present religious scrap is being carried on, we wonder how the

leaders conscientiously can call themselves followers of the lowly Nazarene whose precepts and examples they are supposed to follow as nearly as humanly possible. Medical men do have their differences, but they never have scrapped over medical topics like the religious sects have scrapped over dogmas and interpretations of the Bible.

PRESIDENT COOLIDGE has had much to say concerning real economy and efficiency in the federal government, and while he has been able to affect a good many changes that have resulted in the saving of money to the taxpayers yet in spite of his earnest and repeated pleas for economy there was an increase of twenty thousand civilian employees of the government during the eighteen months from January 1, 1924, to July 1, 1925, with a corresponding increase of government expense. Every one knows that there is a shameful waste of money in paying the salaries of a lot of lazy and inefficient government employees, and it is high time for the taxpayers to put in a protest that will be heard in Congress. There is absolutely no reason for carrying on the government payrolls thousands of men and women shirkers who do little more than draw their salaries. Therefore, we sincerely hope that the government reorganization bill which aims to co-ordinate some of the government's activities and dispense with an army of useless federal employees will be passed and become a law.

It really is amusing to note how solicitous for the welfare of the public are congressmen about the time they are coming up for re-election. The mails are burdened with speeches reprinted from the *Congressional Record*, but which perhaps never were delivered in Congress, and supposedly they are sent out with the idea of acquainting the voter as to how thoroughly the speaker has been interested in the welfare of the "dear people." These vote-seeking politicians always remind us of the fellow who never recognizes you on the street or has anything to do with you until he wants a favor, and then he is willing to lick your hand. If some of our congressmen would keep their constituents posted as to what is going on in Congress, and seek advice as to what action will please the majority of the constituents, it seems to us that those congressmen will come more nearly to deserving re-election. The candidate for office who tries to obtain votes through the distribution of garden seeds and more or less uninteresting literature during campaign periods generally is a good chap to "swat" at the polls.

THE Madison County Medical Society, at its regular meeting on May 18th, voted that "there is no necessity for continuing free examinations of applicants for citizens' military training camp

vacations, or for giving free service in vaccinating these applicants as a protection from smallpox or inoculating them as a protection from typhoid fever. Such services will be charged for at no less than two dollars nor more than five dollars, and if the applicant fails to go to the training camp then the full and regular charge will be made for all services rendered." We congratulate the members of this society upon having the nerve to oppose a species of imposition upon the medical profession which has grown to alarming proportions. It is an all too common thing for medical men to be made "the goat" in the name of patriotism, civic loyalty or charity. Medical men are generous in every emergency and on every occasion where generosity is due, but there is no just and consistent reason for giving their time or their money to promoting those aims or objects which should require no more generosity or charity on the part of medical men than is granted by any one else.

THE results of the primaries are now known. Members of the medical profession should at once seek to determine how candidates for the next legislature stand on the question of upholding and even raising the standard for medical practice in the state, and supporting all National measures pertaining to medical education and public health. What we should ask of all candidates for the legislature is support of the general proposition that each and every person who desires to treat the sick and suffering in Indiana shall meet the same qualifications, and those qualifications must be a knowledge of the fundamental branches of medicine and surgery, with no regard to therapeutics. No equivocation or reservation should be tolerated, and the candidates for the legislature should be placed on record, after which the members of the medical profession should take a hand in politics to the extent of making endeavors to elect the men who are favorable to the cause we represent. It should be made distinctly clear to all candidates that so far as the practice of medicine is concerned we ask nothing more than that every one licensed to practice medicine shall comply with one standard of qualification, and that no one be permitted to practice unless he does comply with that standard.

THE no-tobacco advocates are getting busy. They are using every conceivable means to secure legislation that will prohibit the sale and use of tobacco. It may be argued that they will not get very far, but from experience we have learned that sometimes legislation gets on our statute books before a majority of the people really know what it is all about. Not the same argument can be advanced in support of tobacco prohibition that was advanced to favor the prohibition of alcoholics, for the two propositions are different insofar as

we compare the physiologic, social and economic effects upon the people. However, it seems to be a good season for the antis to get in their work, and there are enough fanatics who will support most vigorously the campaigns of those who banish tobacco, force upon the people drastic Sunday blue laws, and burden us with other inconsistent restrictive legislation. It would be well for some of these radical uplifters to remember that you can not make over the world in a minute and you can not make angels of everyone without resorting to the general use of pistols or arsenic. When you come right down to cold facts, whenever the antis get everything that they want there are a few of us who are ready to become angels, either by the arsenic or cold lead route.

WE suggest to the county medical societies of Indiana that they publish in the daily papers a list of their members who are in good standing, giving the office address, and perhaps the telephone number and hours of each member, and prefacing the list with a statement to the effect that each and every one whose name appears on the list is a member in good standing in the local medical society, is licensed to practice medicine in accordance with the laws of the state, and that the Indiana registration laws require two years of academic training at a college or university, four years of medical training of nine full months of each year, and that the training requires a knowledge of all of the cardinal branches of medicine and surgery which common sense dictates as being necessary for the intelligent recognition and treatment of human ailments. Such a list, carried regularly in the daily papers, is not only valuable as a directory, but it gives the public a knowledge as to what is required of those who legally practice medicine in the state. Furthermore, such a list should be furnished by the officers of the county medical society, and the name of any delinquent doctor should be omitted from the list. This would help the secretary in the collection of dues, and after February first of each year we would not have so many delinquent members.

The pseudo-medical cults sell themselves to the public. This is done by blatant advertising with deceptive reasoning and false promises. It is only recently that the medical profession, in an effort to protect the public from these pretenders, has attempted to give the public the facts concerning many subjects pertaining to individual and community health, but we may well ask, what is the individual doctor doing to further this educational campaign? For instance, how many members of the Indiana State Medical Association are subscribing for *Hygeia*, the health journal published by the American Medical Association, and putting that journal on the reception room tables

where all who come into the doctor's office may read it? Furthermore, how many doctors or how many county medical societies in Indiana are making it a point to place *Hygeia* in libraries, schools, public reading rooms, and in the homes of patrons? The *Saturday Evening Post* recently has reproved us editorially for our failure to take the public into our confidence, and the criticism is deserved. The question is, what are we going to do about it? Our parent body, the American Medical Association, in publishing *Hygeia* has taken a forward step that is deserving of the support of every reputable medical man in the United States. Individually we ought to push this enterprise as we also ought to push the work of the Bureau of Publicity of our State Medical Association.

THE time is coming when some attention must be given to the subject of licenses for those who drive motor vehicles of any kind. This has been brought forcibly to the attention of the authorities in many of our cities through the discovery that not only mental defectives, utterly devoid of judgment, are permitted to drive motor vehicles, but there is no check on the thousands who have marked impairment of vision in both eyes, and some of whom are color blind and thus are unable to distinguish traffic signals. We know of many instances where men with very imperfect vision are driving automobiles, and one instance in particular where a one-eyed man with vision less than 5/200 is driving a motor truck regularly. Such a person can not distinguish human beings, animals, or objects of ordinary size at a distance of fifty feet, and it seems miraculous that such persons ever escape being the direct cause of serious accident and perhaps extensive loss of life. In some of the Eastern cities no one is permitted to drive motor vehicles of any description without passing a fair examination, and such a policy should be adopted as a state measure in every state in the Union. There is no use in laxity for the rural districts, for motor vehicle drivers from the rural districts are just the ones who can create the most disaster when they "go to town." By all means let us have some agitation concerning this subject, and there is no better place for a discussion of it than in our medical societies.

BETTER BUSINESS BUREAUS have a peculiar idea of consistency when they raise the mischief if a merchant prints misleading advertising but are strangely silent when medical pretenders make all sorts of misleading and even untrue claims for the cure of diseases or deformities. Some attention might be paid to the deceptive and misleading advertising concerning the straightening of cross eyes in children without an operation and guaranteeing a cure. In the first place a diagnosis of

the kind of cross eyes and whether or not the condition is pathological or not can be nothing more than mere guess work in the hands of the optician or spectacle vender, and at best even a non-paralytic squint of mild degree offers difficulties to even the well trained ophthalmologist and certainly proves to be still more difficult to the man whose knowledge is confined to glass fitting. Therefore, how misleading is the statement of some of the opticians that "cross eyes can be straightened in ninety-nine cases out of a hundred by a painless method without an operation." The trouble with these opticians is that they are like a lot of quack doctors who make extravagant and even dishonest statements concerning what they are capable of doing. If a merchant makes any extravagant statements, he at once is called upon to change his tactics. Why shouldn't the Better Business Bureau, organized to protect the public, suppress the extravagant and misleading claims of opticians and quacks just the same as they suppress such advertising on the part of merchants.

WE are under the impression that the medical men of Indiana are not familiar with and do not appreciate the good work that is being done by the State Board of Medical Registration and examination in suppressing the worst forms of quackery. We know that someone will say, "Well, why doesn't the Board put the chiropractors and a lot of others out of business for practicing medicine without a license," but that is another phase of the question, and may be answered when the legislature and our courts can be depended upon to uphold a standard of fitness for the practice of medicine that shall apply to all alike.

Indiana has been the dumping ground for a lot of notorious quacks who are no better than the thug and highwayman when it comes to holding up the ignorant sick. Due to the efforts of our State Board, and in particular two members of that board, E. M. Shanklin, of Hammond, and J. W. Bowers, of Fort Wayne, it has become altogether too hot for the more notorious quacks, and they are giving the state a wide berth. The Indiana State Board of Medical Registration would be better if one or two of the older members of that Board were fired, but fortunately a majority of the Board is worthy of the support and appreciation of all right thinking people, and it is unfortunate that this commendable portion of the Board was not functioning fifteen to twenty years ago in the place of the misfits who controlled the Board at that time. Had the original board, most of the members of which disgraced the Board for so many years, done its full duty we never would have heard of a chiropractor in Indiana, and, in fact, the quacks and members of the pseudo-medical cults never would have had a chance to become established in Indiana. It is only after the present creditable representation

of the regular medical profession and one or two others recently appointed came into the Board, that we have had anything like a fulfillment of the obligations of that body.

NEW YORK state has a new medical practice act for which they have worked for more than seven years. It was fostered and urged by the New York State Medical Society and had the approval of Governor Smith. Under its provisions every physician practicing in New York is required to register annually and pay a fee of two dollars on or before January 1. This list of registered physicians is sent to each registrant with the request that he report anyone who is practicing medicine without registration. Inspectors are appointed to enforce the law, and prosecutions are to be under the direction of the attorney-general and not by local district attorneys as at present. The Board of Regents, or licensing body, consists of seven licensed physicians appointed from lists submitted by the state medical societies, including regular, homeopathic and osteopathic sects, and three appointed independent of such nominations. The Board of Regents appoints a committee on grievances to hear all charges against licensed physicians looking toward the revocation of their licenses, and the Board acts on the committee's findings, though it may reverse the findings. Unlicensed persons have no standing in law and may be convicted of negligence as a result of non-registration. It is thought that the new law is sufficiently stringent to protect the public against medical vagaries, although we suspect that there will be many instances where non-registered persons will attempt to heal the sick in spite of any law that is on the statute books which provides for punishment in case of complaint.

A RELIGIOUS journal abstracted one of our editorials condemning Christian Science practices insofar as they apply to the healing art, and the editor seems to be mildly interested in the usual protest that came from the Christian Science publication committee. As we have said before, Christian Science has one of the most efficient and best paid publicity bureaus of any enterprise in the world, and any printed critical comment on Christian Science in its teaching or practices, no matter where it occurs, brings forth a "rise" from the Christian Science publication committee of the locality in which the criticism occurred, or from a representative of the state bureau of publicity for that sect. The amusing part of the answers are the platitudes and the alibis that are interwoven so skilfully in the so-called replies. The editor of the religious paper, who seems to have been taken to task for reprinting either in full or part one of our editorials, should have no fear of consequences, for the Christian Scientists never have and never will prove their point to the satisfaction of an

unbiased and intelligent jury of thinking people, even though any argument put forth is entirely satisfactory and settles the whole question in the minds of Christian Scientists. The Christian Scientists have much to answer for in being indirectly responsible for unnecessary deaths, and they never yet have been willing to put their faith to the test and prove to an unbiased people that their contentions truly are honest and that they really accomplish what they claim to accomplish. Every physician of considerable experience has knowledge of numerous instances where Christian Science has proved a delusion and a snare for those who are suffering from real pathologic conditions which in a very large percentage of cases are amenable to treatment at the hands of intelligent and well-trained medical men. Under Christian Science ministrations the progress of what ordinarily are termed curable affections has been tragic and oftentimes terminated in an unnecessary death, and yet this peculiar sect has the audacity to attach the word Christian to their practices to say nothing of the inconsistency of calling it science. However, we have no quarrel with the Christian Scientists as long as they confine their ministrations to adults, but we do think it is criminal to force such a pernicious teaching and practice upon children or dependents.

BERNARR MACFADDEN and his publications have been condemned in no uncertain tones by various reputable lay publications as well as by the *Journal of the A. M. A.* It would seem unnecessary to issue any further warnings, and yet we know that MacFadden representatives are working in Indiana to foist upon the public, and especially the school children of the state, a pernicious propaganda which ridicules scientific facts and appeals to the credulity and ignorance of the lay public in encouraging opposition to scientific medicine. The Bureau of Publicity of our Indiana State Medical Association has issued a warning against MacFadden, which we hope will be published in every newspaper throughout the state. The warning that has been sounded states that the medical profession of the United States opposes the MacFadden publications for the following reasons:

1. Because the pages of *Physical Culture*, a MacFadden publication, are open to advertisements of some of the worst frauds of a medical and quasi-medical nature ever exploited in the United States.
2. Because of the manner in which the sex appeal is used in the MacFadden periodicals.
3. Because MacFadden attacks those phases of the scientific care of the body that lie within the purview of the scientifically trained physician.
4. Because MacFadden lines himself with the border-line cultists who oppose scientific medicine.
5. Because articles have appeared in *Physical*

Culture signed by names of physicians who do not exist. Articles also have been printed by men who claimed to be physicians but who in reality were not physicians.

6. Because the pages of the MacFadden publications are open to all manner of frauds and fallacies of the food faddist, and the attempt is being made to spread these fallacies among the school children of America.

7. Because MacFadden's publications are generally opposed by members of the Indiana Parent-Teachers Association, and because MacFadden sent a special representative into Indiana at the last legislature who, it is said, with the support of D. C. Stephenson, now serving a life term at Michigan City, defeated all attempts of the Parent-Teachers Association to eradicate obscene literature from the state.

IN some of the eastern states much complaint is made concerning the attitude of health boards in assuming so much of the work that ordinarily falls to the family physician. This is noted in connection with vaccination for smallpox, typhoid, scarlet fever and diphtheria, the examination of school children for glasses, and the establishment of school clinics where tonsil and adenoid operations are performed gratuitously on rich and poor alike in the interests of public health. About two years ago complaint was made that our own Indiana State Board of Health was guilty of performing many services that should be delegated to the private practitioner of medicine, and the specific charge was made that the state is furnishing certain forms of free medical service to its population who are not indigent, who are not in any sense wards of the state, and for purposes not concerned with the enforcement of health regulations.

Some have said that state medicine does not threaten us, but if that of which complaint has been made is not state medicine, then pure alcohol is a mild beverage which can be drunk with impunity and with no fear of intoxication. As a matter of fact, state medicine is a real menace, and the reasons for it are that the medical profession has been apathetic in recognizing the danger, and by specious pleas or influence of promoters has in many instances been led to support it. THE JOURNAL has been one of the first to sound the warning, and we are beginning to see a ray of hope through the gradual recognition of the fact that slowly, insidiously but none the less surely, the legitimate field of the practitioner of medicine is being invaded by departments of public health and by various federal, state and municipal agencies, with the ultimate result in view of having a very large proportion of our population pauperized or willingly made dependents as a result of this widespread effort to furnish medical service gratuitously. Will the medical

profession have the nerve to offer resentment and disapproval of an increasing practice that not only threatens the wiping out of a large proportion of the medical men of the country, but a lowering of the standard of medical service to the public. We await the verdict, and we hope that sounding the alarm may result in a useful purpose.

DEATHS

FRANK P. LYONS, M.D., aged seventy-three years, died April 26, at his home in Flora. Dr. Lyons graduated from the Medical College of Indiana, Indianapolis, in 1881.

BENJAMIN T. FISHER, M.D., aged 80 years, died May 1, at the home of his daughter, in Spencer. Dr. Fisher was a graduate of the Indiana Medical College, Indianapolis, in 1879.

H. C. MARTINDALE, M.D., of Pendleton, died May 4th, aged 45 years. Dr. Martindale graduated from the Indiana University School of Medicine, Bloomington and Indianapolis, in 1908. He was a member of the Madison County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

T. J. MCGOWAN, M.D., of Vincennes, died April 16, aged seventy-two years. Dr. McGowan graduated from the Bellevue Hospital and Medical College, New York City, in 1882.

F. A. CHENOWETH, M.D., of Winchester, died April 14th, aged sixty-eight years. Dr. Chenoweth graduated from the Medical College of Ohio, Cincinnati, in 1886. He was a member of the Randolph County Medical Society, the Indiana State Medical Association and the American Medical Association.

JOHN S. JORDAN, M.D., of Indianapolis, died April 17, aged eighty years. Dr. Jordan graduated from the Indiana Eclectic Medical College, Indianapolis, in 1887.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE annual conference of state and territorial health officers with the U. S. Public Health Service was held in Washington May 24 and 25.

THE board of trustees of the Methodist Hospital has authorized the expenditure of \$850,000 to improve the Methodist Hospitals at Indianapolis and Gary.

DR. H. H. MARTIN, of Laporte, was elected president of the Northern Tri-State Medical Association at the annual convention held recently in Lima, Ohio.

CONTRACTS have been let by the Board of Trustees of the Eastern Indiana Hospital for the Insane for extensive improvements on the equipment of the institution.

THE Jackson County Medical Society held a meeting at the office of Dr. H. P. Graessle, Seymour, March 12. Dr. R. C. Ottinger, of Indianapolis, presented a paper.

DR. FRED L. HOSMAN, of Indianapolis, was elected president of the Indiana State Eclectic Medical Association at the annual state convention held May 12 at the Hotel Lincoln, Indianapolis.

DR. O. W. HINSHAW, of Winchester, was selected by the Randolph County Board of Commissioners to fill the unexpired term of Dr. F. A. Chenoweth as secretary of the county board of health.

DR. J. B. MAXWELL, formerly of Lucerne, Ind., has been appointed on the staff of the Northern Hospital for the Insane, at Logansport. Dr. Maxwell says that his moving leaves a vacancy for a doctor at Lucerne.

THE American Chemical Society will award the second Priestley medal to Dr. Edgar F. Smith, emeritus professor of chemistry, University of Pennsylvania, at the Philadelphia meeting next fall. The medal is bestowed every three years.

THE Mississippi Valley Conference on Tuberculosis will hold a meeting at Chicago, June 14, 15 and 16, with headquarters at the Edgewater Beach hotel. Mrs. Theodore B. Sachs, 300 N. Michigan avenue, Chicago, is the conference secretary.

THE Terre Haute Academy of Medicine held a dinner meeting at the Hotel Deming, May 19. Dr. George W. Crile, of Cleveland, Ohio, presented a paper on "Function of Liver in Its Relation to Management of Operation on Gall Bladder."

AT the meeting of the Madison County Medical Society held at Anderson, May 18th, Dr. A. G. Kyte, of the Eli Lilly Research Department, Indianapolis, presented a paper. The June meeting of the society will be held at St. John's Hospital, June 15th, when the members will be the guests of the Sisters of the Holy Cross at a dinner meeting.

DR. S. P. SCHERER and wife have returned from the meeting of the American Medical Association and an extended visit in the southwest. Dr. Scherer is building a four-story annex to the New Highland Sanitarium in Martinsville, with two modern bath houses to include hydrotherapy equipment.

THE next examination of the American Board of Ophthalmic Examinations will be held in Denver, September 13, just before the meeting of the Academy of Ophthalmology and Otolaryngology. Further information can be obtained from the secretary of the Board, Dr. William H. Wilder, 122 South Michigan avenue, Chicago.

THE Eleventh Indiana Councilor District Medical Society, comprising Carroll, Cass, Miami, Wabash, Huntington, Grant and Howard counties, held its thirty-fifth annual meeting at Wabash, May 20th. A clinic by Dr. A. R. Barnes, of the Mayo Clinic, was held in the forenoon, the subject being "By-Products of Hyperthyroidism." In the afternoon papers were presented by Drs. A. R. Barnes, Rochester, Minn.; Lutha Walker, Logansport, and O. G. Pfaff, Indianapolis. In the evening the members were addressed by Professor Otho Winger, president of North Manchester College, and Dr. J. H. Reed, of Logansport. Special entertainment for the ladies was arranged.

THE Indiana University School of Medicine is compiling a file of the bulletins of the old medical schools. It has a file of the Indiana Medical College except for catalogs up to the year 1877 and 1888. The years 1879 to 1885 are lacking. The session of 1891 and 1892 is lacking as also 1897 and 1898. It has none of the bulletins or catalogs of the old Fort Wayne Medical School. The officers will be grateful to anyone who can supply one or more of these back numbers. Address B. D. Myers, M. D., assistant dean, Indiana University School of Medicine, Bloomington, Indiana.

THE United States Public Health Service announces the issuance of a publication known as the "Venereal Disease Manual for Social and Corrective Agencies." The manual deals with socioeconomic conditions and has chapters on the following: The Venereal Diseases and the Community; Sex Education; Legal Aspects of Venereal Disease Control; Sex Morality and the Law; Juvenile Delinquency; Aids in Conditioning Behavior, etc. The book is designed for use by the following groups: Courts and probation officers, social workers, nurses, visiting teachers, jailers and wardens, policemen and policewomen, superintendents and matrons of homes for the dependent, delinquent and defective classes.

In addition to the articles already enumerated the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Eastman Kodak Co.:

Tetrabromophenolphthalein Sodium Salt—Eastman.

Tetraiodophenolphthalein Sodium Salt—Eastman.

Lederle Antitoxin Laboratories:

Scarlet Fever Streptococcus Toxin for the Dick Test—Lederle.

H. K. Mulford Co.:

Pituitary Body Anterior Lobe Desiccated—Mulford.

Tablets Pituitary Body Anterior Lobe Desiccated—Mulford, 2½ grains.

Tablets Pituitary Body Anterior Lobe Desiccated—Mulford, 5 grains.

Scarlet Fever Streptococcus Antitoxin¹ (Concentrated).

Sterile Solution of Anterior Lobe Pituitary Extract—Mulford.

Ampules Sterile Solution of Anterior Lobe Pituitary Extract—Mulford, 1 cc.

Parke, Davis & Co.:

Corpora Lutea Soluble Extract—P. D. & Co.

Ampules Corpora Lutea Soluble Extract—P. D. & Co., 1 cc.

Swan-Myers Co.:

Ampules Dextrose 50 per cent, 50 cc.—Swan-Myers.

Wilson Laboratories:

Pituitary Solution U. S. P. X. Obstetrical.

Ampoules Pituitary Solution U. S. P. X. Obstetrical—Wilson O., .5 cc.

Ampoules Pituitary Solution U. S. P. X. Obstetrical—Wilson, 1 cc.

Pituitary Solution Surgical:

Ampoules Pituitary Solution Surgical—Wilson, 1 cc.

CORRESPONDENCE

CONCERNING THE DUES

Marion, May 16, 1926.

EDITOR OF THE JOURNAL:

In the last issue of THE JOURNAL there appears a statement concerning the effort that will be made at the next legislature to modify our medical law to give the cults more legal freedom to practice without restraint and that they will be financed to make the effort. Also a statement is made that an effort is brewing to lower the fees for membership in the State Medical Association.

It seems to me that the money we contribute toward preserving the standards of medical practice, and toward memberships in medical organizations is but a pittance. No one should think of lowering the dues to our State Medical Association. It would be better to raise the dues.

I believe the profession would contribute to a fund to preserve and improve the legal standards for the practice of medicine if this subject can be presented properly. I

would like to see it all embraced in an annual amount of sufficient size contributed through the State Medical Association.

Yours very truly,
W. A. FANKBONER, M.D.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

April 29, 1926.

Meeting called to order at 4:45 p. m.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D.; Murray N. Hadley, M.D., and Thomas A. Hendricks, executive secretary.

The minutes of the informal meeting, held April 14, read and approved.

The following bills were approved for payment:

W. K. Stewart Co.	\$.90
The Bailey Office Supply Co.	15.00
American Medical Association	.30

Total \$16.20

The release on Ford Fractures for Monday, May 3, read, corrected and approved.

The secretary reported that a final conference would be held with representatives of the Extension Division of Indiana University in order to complete arrangements for the package library service. This meeting will be held May 7.

The talk upon Periodic Health Examinations, which is to be given over the radio, was discussed. The secretary was instructed to revise the radio release and preface it with an explanation concerning the Publicity Bureau and the work it is doing in educating the lay public.

Speakers have been asked to fill engagements for the following meetings:

May 13, Hammond, Indiana—Large lay meeting conducted under the direction of the Hammond Chamber of Commerce and the Hammond Medical Society, to be addressed by J. C. Bloodgood, of Baltimore; Father Moulinier, of Milwaukee, and Dr. Allen Craig, of Chicago. Upon invitation from the secretary of the Lake County Medical Society the executive secretary was instructed to attend this meeting.

May 13, Orleans, Indiana—Talk before the Kiwanis Club. Engagement filled.

May 17, Indianapolis, Indiana—Annual convention of the Indiana State Dental Association. Upon request of this organization the chairman of the Bureau will make a talk upon the work of the Publicity Bureau.

May 18, Mitchell, Indiana—Talk before the Rotary Club. The secretary was instructed to secure a speaker to fill this engagement.

May 26, Third District Medical Meeting at West Baden Springs. Request for two speakers to talk upon a scientific subject.

Engagements filled:

April 2, Wesley Bible Brotherhood Class, Garrett, Ind.

April 28, Huntingburg, Ind., Kiwanis Club.

Letter received from the secretary of Cass County Medical Society concerning releases.

Letter received from the Metropolitan Life Insurance Company offering the Bureau the free use of the new films entitled "New Ways for Old," a film furthering the toxin-antitoxin campaign for the reduction of diphtheria. The secretary was instructed to write, asking for the use of this film.

Letter received from the secretary of the American Social Hygiene Association with charts which illustrate activities of this body.

The secretary made a report upon the meeting of the American Medical Association at Dallas, quoting from reports and addresses made by the officers of the American Medical Association in which the need of proper medical publicity and lay education work was stressed.

Due to the fact that Bernarr MacFadden is making a

campaign in Indiana through the dry goods stores and the public schools stressing his "physical culture" methods, the secretary was instructed to prepare a brief statement summarizing the MacFadden propaganda work as brought to light in articles published by the American Medical Association and the Atlantic Monthly.

There being no further business, the meeting was adjourned. The above minutes were approved in each separate part and as a whole May 3, 1926.

WM. N. WISHARD, M.D., Chairman.
THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

May 3, 1926.

Meeting called to order at 5 o'clock.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D.; Murray N. Hadley, M.D., and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held April 29, read, corrected and approved.

The following bills were approved for payment:

Kardex Rand Sales Corporation	\$2.25
W. K. Stewart Co.	.90
Central Press Clipping Service	5.00
The Kautz Stationery Company	.90

Total\$9.05

Release on Spring Cleaning for Monday, May 10, read, corrected and approved.

The article in the *Atlantic Monthly* dealing with the bizarre ideas of Bernarr MacFadden, editor of the *Physical Culture Magazine*, brought to the attention of the Bureau.

Letter received from the American Public Health Association.

Speakers arranged for Third district meeting to be held at West Baden, May 26.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole May 10.

WM. N. WISHARD, M.D., Chairman.
THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

May 10, 1926.

Meeting called to order at 5 o'clock.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D.; Murray N. Hadley, M.D., and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held May 3, read, corrected and approved.

The following bills were approved for payment:

Hume-Mansur Co., rent and electricity	\$ 2.00
H. Lieber & Co.	.75
Western Union Telegraph Company	3.00
American Linen Supply Co.	1.60
Remington Typewriter Co.	2.35
Simmons Ink Company, Inc.	5.50
George S. Bond, expenses	15.47

Total\$30.67

The release, "Keep Your Eye on the Ball," for Monday, May 17, read, corrected and approved.

Report upon the meeting of the Kiwanis Club at Huntingtonburg, April 28, received.

Copy of proposed letter warning the public against the campaign of Bernarr MacFadden in the public schools submitted to the Bureau. The letter received the O. K. of the Bureau. The secretary was instructed to see that copies are sent to the Parent-Teachers Association, to the Merchants Association, to the large department stores of Indianapolis, to the ninety-two county superintendents, to the principals of the Indianapolis high schools and to the State Superintendent of Public Instruction and secretaries of the county medical societies.

The secretary made a report upon the progress being

made in completing details for the establishment of the packet library service.

There being no further business the meeting adjourned.

The above minutes were approved in each separate part and as a whole May 17, 1926.

WM. N. WISHARD, M.D., Chairman.
THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

May 17, 1926.

Meeting called to order at 5:00 p. m.

Present: Wm. N. Wishard, M. D.; Murray N. Hadley, M. D.; S. E. Earp, M. D., and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held May 10th read, corrected and approved.

The release "Preventing Hay Fever" was considered by the Bureau but was not authorized for publication at the present time. The secretary was instructed to submit this article to physicians who were doing work along these lines. The secretary was also directed to prepare a newspaper article upon "Poison Ivy" and submit it to members of the Bureau for publication Monday, May 24th.

A letter from the Metropolitan Life Insurance Company concerning the use of the film "New Ways for Old," received by the Bureau.

A letter received from Miss Dorothy Huntington, secretary of the Bureau of Public Discussion, concerning the establishment of the Packet Library.

A letter received from the editor of THE JOURNAL of the Indiana State Medical Association saying that he would send exchanges of THE JOURNAL to Miss Huntington, who has charge of the packet library service.

The secretary made a report upon the large public meeting held May 13th at Hammond under the direction of the Hammond Chamber of Commerce and Hammond Medical Society. This meeting, which was addressed by Jos. C. Bloodgood, M. D., associate professor of clinical surgery, Johns Hopkins University, Baltimore, Maryland, on "Stop, Look and Listen"; Rev. C. B. Moulinier, of Milwaukee, Wisconsin, in "Safety First for the Sick", and Allen Craig, M. D., of Chicago, on "You and Your Doctor," was one of the most successful public health meetings ever held in Indiana.

The radio release upon "Annual Health Examinations" received the approval of the Bureau.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole Monday, May 24, 1926.

WM. N. WISHARD,
Chairman,
THOS. A. HENDRICKS,
Secretary.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

MEAD'S POWDERED LACTIC ACID MILK (Cultured).—A modified milk product prepared by fermenting whole milk with *B. acidilactici*, drying and powdering. Each 100 Gm. contains approximately protein, 29 Gm., carbohydrate, 26.4 Gm.; fat, 28.8 Gm.; free lactic acid, 3 Gm., and ash, 6 Gm. This preparation is proposed for overcoming the so-called buffer action of cow's milk in the infant's stomach. Mead Johnson & Co., Evansville, Ind.

MEAD'S POWDERED LACTIC ACID MILK (Acidified with Lactic Acid U. S. P.).—A modified milk product prepared by adding lactic acid U. S. P. to whole milk, drying and powdering. Each 100 Gm. contains approximately: Protein, 26.4 Gm.; carbohydrates, 34 Gm.; free lactic acid, 3 Gm.; fat, 24 Gm.; and ash, 6 Gm. This preparation is proposed for overcoming the so-called buffer action of cow's milk in the infant's stomach. Mead Johnson & Co., Evansville, Ind.

POLLEN EXTRACTS-MULFORD.—In addition to the

products listed in New and Nonofficial Remedies and *Journal A. M. A.*, June 6, 1925, page 1734, the following are also marketed as fourth series in five glass syringes (doses 16 to 20, inclusive), each containing 1,000 protein units: Lamb's Quarters Pollen Extract-Mulford; Ragweed Pollen Extract (Fall)-Mulford; Timothy Pollen Extract (Spring)-Mulford; Wormwood Pollen Extract-Mulford. H. K. Mulford Co., Philadelphia.

CONCENTRATED POLLEN EXTRACTS-SWAN-MYERS (See *Jour. A. M. A.*, May 30, 1925, p. 1634; Jan. 23, 1926, p. 277; Feb. 27, 1926, p. 625). These are marketed in 2 cc. vials and in sets of five capillary tubes for diagnostic tests, each tube containing sufficient extract for one test. Swan-Myers Co., Indianapolis, Ind.

SCARLET FEVER STREPTOCOCCUS ANTITOXIN-SQUIBB (*Jour. A. M. A.*, Jan. 16, 1926, p. 199).—This product is also marketed in packages of 1 cc. vials for the diagnostic blanching test containing sufficient toxin for ten tests. E. R. Squibb & Sons (*Jour. A. M. A.*, April 10, 1926, p. 1131).

TYPHOID-PARATYPHOID PROPHYLACTIC-CUTTER.—A typhoid vaccine (New and Nonofficial Remedies, 1925, p. 360) marketed in packages of three vials; in packages of one 20 cc. vials; and in packages of one syringe containing a mixture of typhoid bacilli and paratyphoid bacilli types A and B. Cutter Laboratory, Berkeley, Cal.

PARKE, DAVIS & CO.'S STANDARDIZED COD LIVER OIL.—It has a content of fat soluble vitamin-A which is not less than 440 units per Gm. and an antirachitic potency of not less than 59 units per Gm. Parke, Davis & Co., Detroit.

PITUITARY SOLUTION U. S. P. X.-WILSON.—An extract of the posterior lobe of the pituitary body of cattle, preserved by the addition of chlorbutanol. It is standardized to have the strength of solution of pituitary U. S. P. For a discussion of the actions, uses and dosage, see Pituitary Gland, New and Nonofficial Remedies, 1925, p. 260. The product is marketed in 0.5 and 1 cc. ampules. Wilson Laboratories, Chicago.

SCARLET FEVER STREPTOCOCCUS TOXIN FOR THE DICK TEST-LEDERLE.—It is prepared by growing the scarlet fever streptococcus in broth (see Diphtheria Immunity Test, *Jour. A. M. A.*, January 16, 1926, p. 199). It is marketed in packages of one vial containing diluted toxin sufficient for ten tests; in packages of one vial containing concentrated toxin sufficient for 100 tests and a vial of diluent. Lederle Antitoxin Laboratories, New York.

SCARLET FEVER STREPTOCOCCUS TOXIN-LEDERLE.—It is prepared by growing the scarlet fever streptococcus in broth (see Scarlet Fever Immunity Test, *Jour. A. M. A.*, January 16, 1926, p. 199). It is marketed in packages of four vials of diluted toxin containing, respectively, 500, 1,000, 2,500 and 5,000 skin test doses; in packages of four 20 cc. vials of diluted toxin containing, respectively, 500, 1,000, 2,500 and 5,000 skin test doses per cc.; in packages of forty vials of diluted toxin providing ten immunizations. Lederle Antitoxin Laboratories, New York.

AMPULES DEXTROSE 50 PER CENT. 50 CC.—Each ampule contains 50 cc. of a 50 per cent solution of dextrose U. S. P. Swan-Myers Co., Indianapolis (*Jour. A. M. A.*, April 17, 1926, p. 1213).

PROPAGANDA FOR REFORM

IRON AND BLOOD REGENERATION.—"The history of anemia treatment with drugs is indeed a tale to make the judicious grieve." On the whole, iron seems to enjoy the most constant favor by practicing physicians. The clinical control of the treatment of anemia is difficult and the number of variables almost infinity. As a result, widely differing views as to the efficiency of iron preparations have been recorded. Less than four years ago, Whipple wrote that among the potent factors exerting a positive influence of hemoglobin formation, stands first blood, meat and cooked liver, hemoglobin and butter fat. He found iron and arsenic in the common drug preparations inert under the conditions of his experiments. Williamson and Ets subsequently concluded that inorganic

iron is absorbed and may be found in the liver and spleen, but is not converted into hemoglobin and that animals made anemic by bleeding did not recover more rapidly when inorganic iron is given. Williamson believes that the efficiency of food iron is pronounced. Recently, Barkan found that digestive ferments do not liberate iron from hemoglobin. This means that, if the pigment facilitates blood regeneration, it is not so much iron as the complexes with which it is associated that determines hematopoietic efficacy. (*Jour. A. M. A.*, April 3, 1926, p. 1075).

TUBERCULENE, A FRAUDULENT CONSUMPTION CURE.—Tuberculene has been exploited from Danville, Ill., by one Mrs. D. J. Murrman, under the trade name Tuberculene Mfg. Co., as a "lung restorer." A fraud order has been issued against the Tuberculene Mfg. Co. debarring it from the mails. Tuberculene is a mixture of creosote, rock candy syrup, glycerin, syrup of wild cherry and coloring matter. In the trial, the government pointed out that creosote preparations had long been used in the treatment of certain symptoms in cases of pulmonary tuberculosis, but that it has been definitely established that they do not destroy the tubercle bacilli. (*Jour. A. M. A.*, April 3, 1926, p. 1089).

THE ZOALITE LAMP.—This is a device for producing radiant heat for therapeutic purposes. The heat is produced by a "resistor" which is heated by an electric current. The radiant energy emitted by this unit is not unlike the radiant energy produced by an incandescent body such as a bar of hot iron or the filament of a tungsten lamp. The therapeutic value of the Zoalite is precisely that of other sources of radiant heat. (*Jour. A. M. A.*, April 3, 1926, p. 1091).

GNOCOCCUS VACCINE.—It is probable that gonococcus vaccine in some form or other is still used by physicians in the treatment of gonorrhea and its complications. There is no question, however, that this practice is far less extensive than formerly. The use of gonococcus vaccine for curative treatment appears to be sharing in the decline from popular favor of bacterial vaccines in general. Gonococcus serum and gonococcus vaccine were omitted from New and Nonofficial Remedies because the Council on Pharmacy and Chemistry concluded that there was no evidence to show that these preparations had therapeutic value. (*Jour. A. M. A.*, April 3, 1926, p. 1091).

PSYCOSULPHENE.—According to the manufacturer, McNickle & Co., Spring Hill, Mass., Psychosulphene is "a Product of Chemical Research," which promotes circulation through the feet, and those who are suffering from kidney trouble, run down constitution, nervous disorders are instructed to drop a small pinch into each shoe each day. Newspaper advertisements contain testimonials of the wonders which Psychosulphene is asserted to have performed. The A. M. A. Chemical Laboratory reports that from an examination it appears that Psychosulphene is composed essentially of sulphur, 5 parts; starch, 15 parts; borax, 40 parts; baking soda, 40 parts. (*Jour. A. M. A.*, April 10, 1926, p. 1150).

KAOIN IN INTESTINAL DISEASE.—For centuries Chinese physicians have used kaolin in fevers and intestinal disorders, including cholera. Recent experiments seem to confirm the scientific basis of its use. Work in vitro has demonstrated that it is not an antiseptic agent but that in fluid mediums, if kept in motion, kaolin will carry down with it large numbers of bacteria. More than this, it combines with the toxic products of cholera, of the typhoid dysentery group of organisms, and, apparently, with putrefactive and proteolytic bacteria. Recent workers have successfully employed kaolin in Asiatic cholera, bacillary dysentery, chronic ulcerative colitis and acute enteritis. (*Jour. A. M. A.*, April 17, 1926, p. 1217).

IDOSAN NOT ACCEPTABLE FOR N. N. R.—Idosan is an iron preparation manufactured in Denmark. According to the distributor, Duomares Corporation, New York, the active medicinal ingredient is "colloidal iron." Though claimed to be novel, Idosan appears to be essentially similar to the colloidal ferric hydroxide preparation which was in vogue as "dialyzed iron" many years

ago. The Council on Pharmacy and Chemistry found Idosan unacceptable for New and Nonofficial Remedies because the statement of its composition is indefinite and incorrect and because it is an unoriginal preparation marketed under a non-informing name. (*Jour. A. M. A.*, April 17, 1926, p. 1233).

BENZYL BENZOATE FOR THERAPEUTIC USE—VANDYK & CO.—Twenty per cent Aromatized Suspension made from Benzyl Benzoate (VanDyk & Co.) and Benzyl Alcohol—VanDyk & Co. Omitted from N. N. R. The Synthetic Drug Corporation (formerly the United Synthetic Chemical Corporation) markets a brand of benzyl benzoate—Benzyl Benzoate for Therapeutic Use (VanDyk & Co.)—and a preparation of it—twenty per cent Aromatized Suspension of Benzyl Benzoate (VanDyk & Co.). The advertising for these was based on the enthusiastic reports that were published when benzyl benzoate was first used experimentally in medicine. In consideration of the revised estimate of benzyl benzoate, the Council on Pharmacy and Chemistry urged the distributor of these preparations to revise the advertising claims. This revision was not made and, therefore, the preparations have been omitted from New and Nonofficial Remedies. Benzyl Alcohol—VanDyk & Co. was accepted for New and Nonofficial Remedies as a brand of benzyl alcohol—N. N. R. Recently, the distributors—Synthetic Drug Corporation—have adopted the name, "Benzylol" for it and claim this name as a "word mark." The Council on Pharmacy and Chemistry omitted the product from New and Nonofficial Remedies because it is marketed under a name which the Council cannot recognize. (*Jour. A. M. A.*, April 17, 1926, p. 1233).

BISMUTHAL OMITTED FROM N. N. R.—Bismuthal (Langley & Michaels Co., San Francisco) is a mixture containing an insoluble bismuth citrate and pepsin as its active ingredients, with hydrochloric acid and lactic acid to protect the pepsin. It was accepted for New and Nonofficial Remedies in 1909 when an extended clinical practice of prescribing mixtures of a bismuth preparation and pepsin justified its acceptance. During recent years the prescribing of pepsin in combination with other therapeutic agents has been generally abandoned. The Council omitted Bismuthal from New and Nonofficial Remedies on the ground that the routine combination of a bismuth compound and pepsin in the form of a stock preparation is not in the interest of rational therapy. (*Jour. A. M. A.*, April 17, 1926, p. 1233).

STARCH DIGESTANTS.—Recent studies of salivary digestion show that 76 per cent of the starch of mashed potatoes and 59 per cent of the starch of bread was converted to maltose, an additional percentage being changed to dextrin. If food is properly masticated and starch digestion allowed to proceed fifteen minutes or so in the stomach, almost as much starch is broken down as when digestion can proceed for a long time. For this the high amylase content of saliva is responsible. The use of amylase preparations in medicine has lost its former vogue. With starch presented in readily digested form, there is little need for salivary digestants—that is, the responsibility for proper digestion of starch is being transferred to the technique of the food factory and the kitchen instead of the purveyor of digestive ferments. (*Jour. A. M. A.*, April 24, 1926, p. 1228).

BOOK REVIEWS

FACTS ON THE HEART. By Richard C. Cabot, M.D., Professor of Medicine and Social Ethics, Harvard University. Octavo of 781 Pages with 163 Illustrations. Philadelphia and London: W. B. Saunders Company, 1926. Cloth, \$7.50 Net.

The author of this book has the faculty of imparting to his students knowledge that seems not only to be intensely practical but given to them in such a way that it is not forgotten and his textbooks have that same impressive character in the presentation of the subject matter so that the books not only meet with great favor but are accepted

as authoritative. This book on the heart is no exception and he has collected, arranged and interpreted the results of his pathologist's labors insofar as they relate to cardiovascular disease. He also has studied and abstracted the ward records of 1,906 cases decisively diagnosed postmortem, and has worked backward into the corresponding clinical records. In short, this is a study of the diseased heart from actual cases and the final conclusions in most of them are based upon autopsy. Little has been said concerning treatment. However, the whole book is interesting and instructive despite the author's warning that most readers should read the opening and closing chapters and the summaries at the end of each chapter and then look over as many of the illustrative cases as seem interesting.

PRINCIPLES OF SURGERY FOR NURSES. By M. S. Woolf, M.A., B.Sc., M.R.C.S. (Eng.), L.R.C.P. (London) Instructor in Surgery, University of California Hospital, San Francisco. Twelve Mo. of 350 Pages. Illustrated. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$3.00.

This book fulfills its purpose of giving nurses what they require and should have concerning a knowledge of surgical conditions and well established methods of treating them. It is suitably illustrated.

CHEMICAL PATHOLOGY. By H. Gideón Wells, Ph.D., M.D., Professor of Pathology in the University of Chicago, and in the Rush Medical College, Chicago. Fifth Edition, Revised and Reset. Octavo of 790 Pages. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$8.50.

This revised and reset fifth edition of a well known and approved work on chemical pathology needs no extended notice. Like all other subjects, chemical pathology has developed within the last few years like all other problems of medicine and surgery, and the present volume reflects the progress that has been made. As in previous editions, the subject embraces the subject of general pathology from the standpoint of the chemical processes involved. The book has grown constantly in favor and is accepted as an authoritative textbook.

MANUAL OF PSYCHIATRY. By Paul E. Bowers, M.D., Examiner in Lunacy, State of California; Lecturer in Neuropsychiatry, Post-Graduate Medical School of the University of California, Los Angeles. Octavo Volume of 365 Pages. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$3.50.

In reality this is a reference handbook for the use of student and general practitioner in that it gives in a concise manner a systematic outline of the value of psychiatry. Every practitioner of medicine is confronted with problems relating to mental disorders and as a ready reference book giving brief yet comprehensive information concerning the different aspects of mental medicine this book will prove very acceptable and we highly endorse it.

INFECTION, IMMUNITY AND INFLAMMATION.—By Fraser B. Gurd, B.A., M.D., C.M., F.A.C.S., Lecturer in Applied Immunology and in Surgery, McGill University, etc. C. V. Mosby Company, St. Louis, 1924. Cloth. \$5.00.

This book has been written by a practicing surgeon who for many years has made the study of infection and the reaction of the tissues to irritants his special interest and hobby. The prevention and treatment of infection by means of bacterial or other protein preparations should be placed upon a rational basis and this requires a proper appreciation of the allergic phenomena and its relationship to anaphylaxis and tolerance which the author discusses in an intelligent way. The chapters on anaphylaxis in man, the application of immunity principles to the prevention and treatment of disease which includes a discussion of serum therapy, and the use of the various

(Continued on Adv. Page xx)



INSULIN SQUIBB

INSULIN is the active anti-diabetic principle of the Pancreas, and is the one and only anti-diabetic specific.

INSULIN SQUIBB, in common with other brands of Insulin, sold under whatever name in the United States, must conform to the standards and requirements established by the Insulin Committee of the University of Toronto.

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Complete Information on Request.

E. R. SQUIBB & SONS, NEW YORK
MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

BOOK REVIEWS

(Continued from Page 260)

vaccines and foreign proteins, are especially interesting and of practical value.

DEVELOPMENT OF OUR KNOWLEDGE OF TUBERCULOSIS.

By Lawrence F. Flick, M.D., LL.D., Co-Founder of the Rush Hospital for Diseases of the Chest, etc. Octavo of 783 Pages. Wickersham Printing Co., Lancaster, Pa., 1925. Cloth, Price \$7.50.

This book is a history of the development of tuberculosis from a period before the Christian civilization down to the present time. Special consideration is given the subject of human and bovine tuberculosis and the various types of tubercle bacilli with their relationship to other micro-organisms. Those who are interested in the subject of tuberculosis will find the book interesting and instructive.

INTRAVENOUS THERAPY. By Walter F. Dutton, M.D.,

Formerly Medical Director Polyclinic and Medico-Chirurgical Hospitals Graduate School of Medicine, University of Pennsylvania; Visiting Physician to the Northwest Texas Hospital, Etc. Illustrated with Sixty-four Half Tones and Line Engravings. Second Revised and Enlarged Edition. F. A. Davis & Co., Philadelphia, 1925. Cloth, \$6.00.

This is the second edition of a book that has met with favor because of the present importance of intravenous therapy in the treatment of the numerous affections that affect mankind. Intravenous therapy is now a well established method of administering drugs to the human organism and amply supported by clinical evidence, but it is absolutely essential for the physician to know the thera-

peutic and physiologic effect of the medicament used intravenously, and the author attempts to point out the value of this procedure which is indicated in a wide variety of conditions. So far as we know the first edition of this book represented the first manual on intravenous therapy ever published and the subject has been discussed not alone from the experience of the author but from the experience of others who have reported in literature their experiences. The book is a very useful and practical book on therapy and we take pleasure in recommending it. It is well illustrated, some of the illustrations being in color.

MEDICAL DIAGNOSIS. By Charles L. Greene, M.D.,

Formerly Professor of Medicine and Chief of Medical Clinic in the University of Minnesota. Sixth Revised and Enlarged Edition. Illustrated. P. Blakiston's Son & Co., Philadelphia. Cloth, \$12.00.

Books on medical diagnosis come and go, but none will be found better or more popular than Greene's which now is in its sixth edition, revised and enlarged. The most important changes have been the addition of a number of new diseases and the rewriting and expansion of various sections and the addition of a number of new illustrations among which are two new series of cardiograms and polygrams. All of the new and modern tests, procedures and diagnostic methods of value and importance have been included. The author avoids machine made diagnoses and places emphasis upon those physical signs and symptoms, new and old, which still constitute the chief aid and reliance of the busy physician. The clinical symptoms, importance of basal metabolism, has been given due consideration together with its clinical scope and definite limitations. The general arrangement is excellent and the marginal legends are especially helpful. The text is further illustrated by fourteen color plates and over seven hundred other illustrations in black and white.

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INDIANAPOLIS

THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

ALBERT E. BULSON, Jr., B.S., M.D., Editor and Manager

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NUMBER 7

ORIGINAL ARTICLES

RAT BITE FEVER

HERMAN M. BAKER, M.D.

EVANSVILLE

Rat bite fever is not common in the United States. It has been considered worth while, therefore, to discuss the literature briefly and to report the findings in three cases observed during 1923, all of undoubted rat bite fever, although the history of infection in the one case is somewhat questionable.

Rat bite fever probably was reported first by the French in 1884¹. In 1889 it was discussed in more detail by Miyake². Horder³ in 1910 mentioned the first cases noted in British literature. The disease is recognized in all parts of the world but is, of course, more common in the countries where the inhabitants live in close proximity of rats. By far the greatest number thus far have been reported from Japan, where it is estimated that about three per cent of the house rats are carriers. England⁴, France and the United States have reported a fairly large number of cases.

It would appear that the cause of the disease is not yet regarded as fully determined. A group of Japanese investigators in 1915⁵ described the *spirochaeta morsus-muris*. I can find no reference in the literature that this organism has been identified in man in the United States. In Japan it has been recovered from rats and from man suffering from rat bite fever⁶. Tileston⁷ in 1916 described a streptothrix which was also described by Schottmuller⁸ and Blake⁹. A spirozoon and diplococcus also have been described as being of etiologic import¹⁰. According to the Japanese particularly, and certain other authors who consider the *spirochaeta morsus-muris* the underlying cause of the disease, it would appear that the organism is found in the blood during the first weeks of infection. It also is found in the capsules of the lymphatic glands, on the mucous membrane, in the salivary glands, and in the parenchymatous organs.

The experimental work on the isolation of the organism causing this disease is not yet complete. The causative factor of rat bite fever is transmitted by the bite of a rat, cat, dog, mole, ferret, etc. In animals other than rats the disease

probably has been acquired by the bite of an infected rat. Following inoculation the wound generally heals readily and the incubation period is quite variable.

The prodromal symptoms are variable. The site of inoculation remains healed through the course of the disease as a rule. The early symptoms are very much like the prodrome of typhoid fever, and there may be lymphangitis and adenitis. If untreated the course of the disease is usually quite long.

The constitutional symptoms are ushered in as a rule with a chill and a very characteristic temperature. They usually develop in from ten to forty days after inoculation. In the typical cases we see the chill, backache, headache, muscle pain, malaise and also a most characteristic skin lesion. The temperature usually runs quite high. In the severer type of the disease, seen in the oriental countries, there is considerable involvement of the nervous system, and other vital organs generally show evidence of toxemia. In one of my cases there was a definite endocarditis which left the patient with a marked systolic murmur.

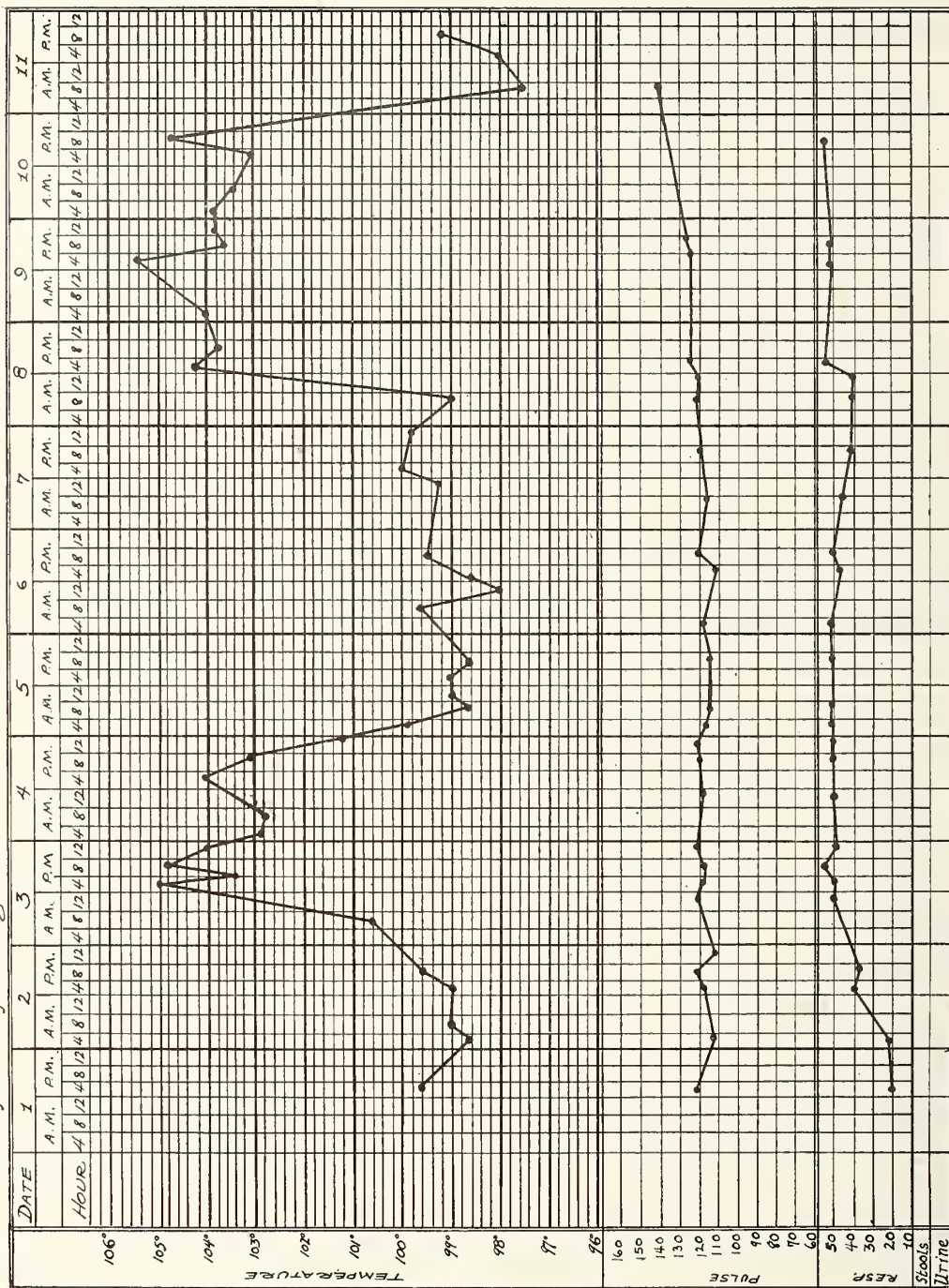
The type of temperature is one of the most characteristic features of the disease. It is intermittent, with exacerbations occurring every two to six days. In most instances there is a marked increase of the cutaneous symptoms with each temperature exacerbation. This was noted in all three of this group. We observed no chill preceding the rise in temperature. In the severer types of the disease fever may run a continuous course.

The exanthematic phase of rat bite fever may be graded as mild and severe, and classified under the individual groups of rosela, indurated erythematous plaques, urticarial manifestations, lesions of the mucous membranes and alopecia¹¹.

Burton-Fanning estimates that in two-thirds of all rat bite fever an exanthem is present. My group of cases appeared to have the most typical cutaneous lesions. The areas were slightly indurated, bluish red, varying in size from three to fifteen centimeters. The lesions were not symmetrically disturbed but were widely disseminated and variable in size. With each exacerbation of fever the old faded lesions lighted up and some new ones appeared. As a rule these subsided with the

ST. MARY'S HOSPITAL
GRAPHIC CHART

NAME *Baby Dorothy Downeg.*



TEMPERATURE CURVE IN RAT BITE FEVER.

drop of temperature. Brownish pigmented patches usually persisted until the next temperature rise. We made attempts to procure cultures from these erythematous areas, and we also inoculated rats and guinea pigs with serum taken from scarifications in the areas during the height of the temperature exacerbation. After the disease progresses the intervals between the exacerbations of temperature become longer and the temperature lower, and the skin lesions become less prominent, disappearing entirely with the arrest of the condition. The Wassermann reaction has been reported positive by certain investigators, but was negative in my three cases.

Case 1—Dorothy Downey, age ten months. Parents lived in a houseboat along the river bank. Was first taken sick about a month previous to admission to hospital on June 18, 1924. The entrance history shows that about four weeks ago the mother found the child screaming early in the morning and when she went to the child found a rat gnawing at a large wound on the left side of the scalp. The wound was about the size of the palm of a hand. The child was taken to a physician on the following morning who prescribed some ointment for the wound. The child was seen by various physicians until admission to the hospital.

The admission note states that the child was badly nourished, weighed 11½ pounds, had a sloughing wound which about this time was the size of a twenty-five cent piece. The child was kept in the hospital, the wound treated, but no diagnosis made.

It came into the writer's service July 31, 1924. At this time the baby weighed 10 pounds, the wound on the head practically had healed. There was a rather typical temperature curve, with an erythema suggesting erythema nodosum, erythema multiform, etc. However, with the definite history of rat bite, and the characteristic temperature curve (see attached chart) a diagnosis of rat bite fever was made. An attempt at this time was made to obtain organisms from the blood. Centrifuged serum was examined with the dark field, cultures on various media from blood and from punctures into the lymphatic glands, inoculation from guinea pigs and a rat from blood and serum taken from scarifications over the erythematous areas. These all proved unsuccessful.

The child was placed on lactic acid milk with dextri maltose, 30 drops of cod liver oil three times a day, strained vegetable soup and vegetable purees, with exposure to the ultra violet lamp, and on August 1st was given .06 grams of sulfarsenol intramuscularly. Immediately following the administration of the arsenical preparation the child showed improvement. The temperature at the next exacerbation did not go so high and the general condition improved markedly. On August 5th another dose of sulfarsenol was given. On August 7th the child

weighed 11½ pounds and was apparently doing nicely. This improvement continued through the latter part of August when the child was taken away from the hospital against the advice of the hospital authorities and taken back into a most terrible environment for a case of this kind. The final note on the record shows that the child was reported to have died September 18, 1924, of pneumonia.

Case 2—Carl Edwards, age twelve years, colored. This case was seen first in consultation with Dr. G. W. Buckner on November 18, 1924, with the history that about September 10, 1924, he had been bitten on the left ear by a rat which had gotten into his bed. The boy was positive of this because he held the rat in his hand. The following day he was taken to the physician who cauterized the wound on his ear, which healed without further trouble.

On October 5th, the boy developed a temperature of 103 and from that time until November 18th, was treated by his physician with no definite diagnosis having been made, although it was presumed that the boy had typhoid fever.

On November 18th, when I examined him, he was in bed with a temperature of 105. This temperature had been of an intermittent type throughout the period of his illness. He was in a bad state of nutrition but very alert mentally. He was 57 inches tall and weighed 60 pounds. The tonsils were moderately hypertrophied. There were some cervical glands palpable. The pulse was 90 and there was marked systolic murmur heard over the entire chest. There was a typical erythema scattered diffusely over the entire body. This was in the form of bluish red patches. This child is a colored child, but the skin was not dark, more of mulatto type, and the erythematous patches were very distinct. The diagnosis of rat bite fever was made and the child sent to St. Mary's Hospital for study and treatment.

The patient was admitted to the hospital November 18, 1924. At this time attempts were made to inoculate rats and guinea pigs from blood serum and from serum taken from scarifications in the erythematous areas in the skin. After several specimens were taken the boy was given .06 grams of sulfarsenol intravenously. The following day the temperature dropped to normal (although the sulfarsenol was given at the height of a temperature exacerbation) and never rose above 99. A Wassermann test was negative.

THE BLOOD	
Erythrocytes	3,800,000
Leucocytes	11,500
Polymorphonuclear	27%
Lymphocytes	27%
Eosinophiles	1%
Basophiles	1%
Mononuclear	1%
<hr/>	
100%	

URINE

Color—Straw. Sp. Gravity 1.024. Alkaline, no sugar, faint trace of albumen.

Microscopically: Nothing of consequence.

The patient left the hospital on November 28th, markedly improved, temperature was normal, appetite was good, he was brighter and asked to get out of bed. The .06 grams sulfarsenol dosage was repeated at four-day intervals for four doses. On December 10th, the boy weighed 80 pounds, was apparently in good health with the exception of the systolic murmur, and was discharged at this time. Recent inquiry, May 10, 1926, shows that the child has continued in good health.

Case 3—George Buckener Edwards, colored, age five years, and a brother to case No. 2. This child was seen at the same time as was his brother, case No. 2. On October 12th, he was taken suddenly sick with a chill and temperature of 104. In all other respects the progress of his illness was identical with that of his brother. There was no definite history of rat bite in this case although there was an abrasion on the outer side of the left knee joint which could not be accounted for and was rather red and indurated when discovered by the parents a few days before the child developed the chill and fever. Inasmuch as this family lived in a rat infested house, we assumed that this was a rat bite. The temperature curve, erythema, and general course of the disease together with the very prompt response to arsenical preparations, made a very true picture of rat bite fever.

This child was admitted to St. Mary's Hospital on the same date as was his brother and the same efforts were made to isolate organisms from his blood and from the erythematous areas in the skin without results.

THE BLOOD

Erythrocytes	3,900,000
Leucocytes	9,500
Polymorphonuclear	72%
Lymphocytes	25%
Eosinophiles	2%
Basophiles	1%
	100%

URINE

Color—Straw. Sp. Gravity 1.030. No sugar. No albumen.

Microscopically: Nothing of consequence.

This case was treated in the same manner as his brother, case No. 2. When first seen he was not in such a poor state of nutrition, and the general physical examination was negative. Like case No. 2, this boy made an uneventful recovery after sulfarsenol was administered. Wassermann was negative in case No. 3 as in other two cases.

Two rats and two guinea pigs were inoculated from case two and case three. These animals were closely observed over a period of four weeks at which time through carelessness on the part of attendant in the animal house two of the guinea pigs and two of the rats died from pneumonia. The other animals lived and were repeatedly examined for evidence of spirochaeta or other organisms. After a period of ten or twelve weeks this was given up and the animals killed.

CONCLUSIONS

These cases show that rat bite fever is present in Indiana and should be considered as a possibility in cases of unexplained protracted fever, most especially if there is a history of a bite by any of the smaller animals.

It would appear that study of this disease and its cause is not yet complete.

No doubt the organisms of this disease become localized in various inaccessible areas and it is difficult after the first few days to find them. This would explain our inability to isolate organisms in these cases which were all seen late.

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THROMBOSIS OF INTRACRANIAL SINUSES*

ETIOLOGY AND PROPHYLAXIS

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INDIANAPOLIS

As physicians progress in preventive medicine they are increasingly obligated to the profession. Life expectancy has been prolonged and the economic value of life has developed accordingly. Sickness interrupts, death terminates productivity. The pandemic of malaria has yielded to community sanitation, while individual immunization has disposed of the annual epidemic of typhoid fever. Preventive medicine has made its important advances by being directed against primary diseases. Intracranial thrombosis is not a primary disease, but a complication dependent upon some antecedent process. Mastoiditis is the commonest

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and best known of these antecedents. We cannot control the incidence of mastoiditis by sanitation or immunization, but must combat the disease in its developed state. Surgery seeks to eradicate the focus of infection, but too frequently a thrombosis complicates the situation, and again too frequently, the situation terminates in death. We must study the problem of preventing the complication.

Anatomy. The dura mater is constituted of two layers which are loosely united by strands of connective tissue. The outer forms the lining periosteum of the skull. The inner layer is inelastic but flexible, and yields to pressure. Where the inner layer is reflected from the outer, a triangular space is formed, and in this space is a sinus. Where no such space is provided, the sinuses lie within re-duplications of the inner layer.

The superior sagittal sinus drains the meninges and cortex in the area of the cranial convexity, and empties into the right lateral sinus usually. The inferior sagittal, uniting with the great cerebral vein, empties into the straight sinus. The latter empties into the opposite lateral sinus. This system drains the meninges of the base and the interior of the brain. The lateral sinus becomes the sigmoid, which empties into the jugular bulb. The cavernous sinuses lie on each side of the sella turcica. Each communicates with the lateral by way of the superior petrosal, and with the jugular bulb by way of the inferior petrosal sinus. They are connected with each other and with the superior sagittal sinus. They have peripheral connections with the veins of the face, the nasal cavity, the accessory cavities of the nose, the pterygoid plexus, and the anterior deep temporal veins. The occipital sinuses join the laterals. At the origin of the laterals there is usually found a communication between the right and left systems. The condylar veins communicate with the sinuses, and these, with the occipital sinuses, establish connections with the upper spinal veins. The tympanic venous plexus empties into the superior petrosal, and veins from the labyrinth empty into the inferior petrosal sinus. The general sinus system communicates with peripheral structures by way of the diploic and emissary veins; of these the mastoid emissary is the most important to the subject. None of these passages has valves and blood may flow in either direction through them. So it is possible for blood from the temporal bone to reach the lateral or the cavernous sinus. The passages are lined with the endothelium common to veins.

From an anatomical consideration it can be understood how infections incident to diseases or injuries of extra-cranial structures can be carried by diploic or emissary veins to the diploe, the meninges, the brain and the sinuses.

Thrombosis. The purpose of a thrombus is to arrest hemorrhage, to envelope bacteria, or to pro-

tect weak-walled, injured or infected vessels. The wall of a vessel underlying a thrombus is always injured, but whether cause or effect in a given case is uncertain. It must not be forgotten that a natural process of conservation may sometimes get beyond control and cause the death of the whole organism as in thrombosis of the lateral or cavernous sinuses, or of a single organ as in thrombosis of the central vein of the retina.

Among the factors to be considered in the formation of a thrombus there are: changes in the vessel wall, changes in the constitution of the blood, including contained organisms and their toxins, diminished rate of blood current and severe hemorrhages. All such factors should be regarded as interference with the nutrition of the endothelium of the vessels involved. Hemorrhages starve the cells; retarded blood flow produces a relative stagnation in the supply of nutritive materials; bacteria and their toxins poison the cells and disturb their metabolism. Changes in the vessel walls usually result from pressure. It may be applied by pent up pus that produces necrosis, or it may be applied by an extension of a thrombotic plug from a smaller vessel. Pressure destroys endothelial cells. An active leucocytosis resists most of the factors concerned in thrombus production when it is due to an infection.

The most commonly found location of thrombosis demanding a well-guarded prognosis as to life, is in the lateral or sigmoid sinus. Therefore it merits particular attention and the discussion will now be directed to it. Of the two processes of production, one proceeds by continuity and the other by contiguity.

The process by continuity is due to some infectious disease such as the acute respiratory infections, the exanthems, etc. It depends on an invasion by way of the blood stream. The numerous veins of the petrous and mastoid portions of the temporal bone empty their blood directly or indirectly into the sigmoid or lateral sinus. The venules of the congested mucous membrane of the mastoid cells or of the middle ear become infected and thrombosed. The thrombus extends along the lumina of the venules. The thrombi may invade the vessels of the bony intercellular walls and produce an osteo-thrombotic phlebitis. A further extension carries the process to the sinus and pressure on the endothelium is applied from within. As this is a congestive or hemorrhagic condition, no protective granulations are formed. Infecting organisms invade the thrombus because it constitutes a favorable culture medium. The now septic thrombus softens; fragments are detached and enter the circulation to produce or to prolong a bacteriemia. This accounts for the fading hemoglobin, the diminishing number of red cells and the excessive percentage of polymorphonuclears in a stationary or declining total leucocyte count.

The process by contiguity is due to a localized infection in the middle ear or in the mastoid cells. Pus stagnates in these areas and produces a pressure necrosis of the adjacent bone. Protective granulations are found at operation and these should never be disturbed. If absorption of bone occurs the process extends to the sinus wall, which, being bathed in purulent materials, also becomes necrotic. Extradural or perisinus abscesses may form and produce pressure on the sinus wall, likewise with necrosis. The necrotic process eventually reaches the endothelium and injures it. The response to such an injury is thrombus formation. If a systemic infection occurs it will be a late manifestation. This variety of thrombus production is associated with the coalescent type of mastoiditis. In both types there is a progressive destructive lesion. A thrombus may occur incidental to any mastoid or middle ear infection and it is formed consequent to injury of endothelium of the vessels in the diseased area.



Coronal section 1 cm. posterior to external auditory meatus. The bony plate between the mastoid cells and the lateral sinus wall is very thin and contains dehiscences. Above the genu the cells of the petrous portion are seen. Pathology in either of these groups of cells may lead to thrombosis of the lateral sinus.

A patient may have had a chronic otitis media or a chronic mastoiditis for years without menace to life and with but little apparent impairment of general health. Such a condition can be accounted for by assuming either that the infection is of low grade or that a relative immunity has been established. However, such a patient may acquire a more virulent type of infection, which, acting on tissues of low vitality, may terminate fatally.

Treatment. In the treatment of intracranial thrombosis our attention is first directed toward prophylaxis. An acute infection will demand prompt and vigorous action. A chronically discharging ear, a persistent or frequently recurring earache associated or not with some systemic infection, or a persistent tenderness over the mastoid region deserves careful study. The logical pro-

cedure is to clean out all local evidences of disease by surgical intervention. While such measures need not be discussed here, we know that the most painstaking surgery may fail to protect the patient. Since thrombosis is a complication of mastoiditis, we have the advantage of knowing that every case of the one is a potential case of the other. It is not proposed that every patient who has had mastoiditis shall be subjected to unnecessary, indiscriminate or routine treatment of a prophylactic nature. But a selected prophylactic treatment is solicited for the patient who does not show an early postoperative tendency toward recovery and for the one whose symptoms indicate a postoperative complication, be it thrombosis or abscess.

Although the location of the disease does not encourage biotherapy (construed broadly), such expedients should neither be ignored nor condemned without due consideration. If bacteremia exists, consider bactericides intravenously. If the antibodies are low, build them up by stock or autogenous vaccines. If the patient is approaching a defensive collapse, give transfusions. By all means try to establish an active leucocytosis. A critical case of pneumococcus infection of the mastoid in a child who had been treated surgically, was given mercurochrome 220 and gentian violet. The effect was prompt and satisfactory. A similar case was treated, after operation, with the same agents and transfusions. The results were also satisfactory. It is not certain that either of these patients would have developed a thrombus, but the clinical evidence of approaching danger could not be ignored. Kopetsky (*Jour. A. M. A.*, August 2, 1924), says that "if the hemoglobin declines to 55, and the white cell count diminishes to 10,000, a transfusion is indicated to support the patient and to give him the benefit of clean healthy blood." He states that as many as three transfusions may be given, but each time should be from a different donor.

A review of the literature of the last six years offers clinical proof of the value of protein therapy in ophthalmic practice. The recorded observations suggest the applicability of these therapeutic principles to similarly diseased states. Specific proteins include vaccines, serums and antitoxins. Non-specific proteins include all that are not specific; their reactions are of a general nature rather than specific, even though a local reaction may occur at the site of the lesion. They were found to be particularly useful where there was a depression of the defensive powers or where the reactions of the body were sluggish. If there are special indications for them it is in inflammation with edema or suppuration. Specific proteins, such as antityphoid vaccine and antitetanic serum, may be used as non-specific proteins. Perhaps the most generally used of the strictly non-specific agents in ophthalmic practice

is milk, and the parenteral injection of milk applies to what follows. Good results have been repeatedly reported in corneal ulcer (particularly when accompanied by hypopion), in panophthalmitis, endophthalmitis, sympathetic ophthalmia, ophthalmia neonatorum, gonorrhoeal ocular infections, ocular tuberculosis (contraindicated if associated with a systemic tuberculosis), the various uveal inflammations and in orbital cellulitis. In one patient it not only cleared up a gonorrhoeal conjunctivitis, but also a coexisting urethritis and an old suppurative otitis media. It has been successfully employed as a prophylactic in perforating injuries of the globe and in such injuries that had become infected, for preoperative prophylaxis against secondary infections, and in postoperative septic conditions. In the last, horse serum has also been used with success. An advantage of milk injections is that they may be repeated frequently. The contraindications are comparable to those that rule in ether and chloroform anesthesia; namely, status lymphaticus, pulmonary tuberculosis and marked asthenia.

Various theories have been advanced for the good effects. It is severally claimed that there is an increase of opsonins, of antibodies, of intermediate and proteolytic ferments, of alexins, of the biologic activity of body cells, and, most important, an increase of leucocytes. The production of the latter has been reported as being greater after the intravenous use of caseosan (a milk product). In any event, it seems that the effects are due to the action of proteins formed from dead or disintegrating bacteria, or to decomposition products resulting from the action of bacteria on natural milk proteins.

In ophthalmic diseases leading to destruction of the globe or of any of its tissues the pigment is suspected of playing an important part. Van der Hoeve (*Trans. Amer. Acad. Oph. and Oto-Lar.*, 1921, and *Arch. of Oph.*, July, 1922), calls attention to the resemblance of the pigment of the retina to that in the labyrinth. There may be a possible analogy here. Routine preoperative and postoperative examinations of the vestibular functions might demonstrate a greater frequency of labyrinthine involvement than is at present suspected.

If non-specific protein therapy is of advantage in ocular diseases it deserves investigation in otologic practice. The writer is not aware that any organized research work has been done in the latter field.

In discussing Kopetsky's paper, Barnhill emphasized the importance of early diagnosis and stated that "Every case of ear disease with evidence of systemic infection should be closely watched." Careful watching implies the ability to take advantage of situations favorable to the employment of measures looking toward the saving of life. In these conditions an active leucocytosis and the formation of antibodies should be

encouraged. Transfusions and bactericides may be urgently indicated. The usefulness or uselessness of non-specific proteins should be known.

We understand the etiology of intracranial thrombosis; our problem is to prevent its occurrence.

DISCUSSION

J. F. BARNHILL (Indianapolis): This is a very large subject and an extremely important one to all who see sick people. The first thing which Dr. Rutherford brings out is the wide field in which the sinus thrombosis may occur. It is entirely probable that surgeons do not always realize how wide this field is. The essayist pointed out the various channels through which infection may reach the interior of the skull. I fancy if we stop to quiz ourselves concerning how end infection takes place, we usually think of it as occurring from the ear only. It probably does not occur from the ear or from the complications of ear diseases more than it occurs from other sources. I believe it is true that we have a great many more thromboses of the cavernous sinus than we ever realize because all who do work in the frontal sinuses and about the orbit and face know how often one finds infection in these places and it stands to reason and is also a clinical fact that infection may be just as easily carried from accessory sinus suppuration as from the ear. I presume it is because the ear is the oldest known among causes and has been written about the most, that we think of it first as a cause of sinus infection. Sinus infection may also be transported from the exterior of the head through the external facial veins.

The essayist has gone to considerable trouble to show that endothelium must be involved in the process which is known as thrombosis. We will admit that the endothelium is involved, but that it is involved before the infection takes place, I scarcely care to admit. This involvement of the endothelium comes about because there is infection near it and which crowding down, infiltrates, but not because of any other reason.

The doctor mentions two ways in which infection gets into the veins, whether coming from the ear or elsewhere, although he refers to the ear more especially, I believe. He mentions the hemorrhagic variety of mastoiditis as classified by Kopetsky and also the other variety most commonly recognized. I still insist that it is bad form to use the word "hemorrhagic." It gives us the wrong notion. If you open a mastoid and find what Kopetsky calls the hemorrhagic variety, you do not find what you would be led by the word "hemorrhagic" to expect. There is no more hemorrhage there than in any other form of mastoiditis. Indeed, there is often a drier wound. The variety Kopetsky describes is one of those surprising kinds of mastoiditis in which you do not find the thing you expect to find, namely, a suppurative process with much pus in evidence,

and the doctors and internists who may be present often think the operator made a mistake, that he has opened a mastoid without reason because there is no great flow of pus. I do not know what the classification for these non-suppurative cases should be, but I think the name "hemorrhagic" is unfortunate. Yet the pathology is clear. Kopetsky points out correctly that the veins which lead from the ear to the sinuses are infected, become thrombosed, and carry the infection to the great intracranial sinuses. There is no pus because there has not been time for its formation. The mastoid cells are scarcely involved in this territory traversed by the infected veins. In all this class of cases, as Dr. Rutherford has said, there is a reason not to be in haste, and if we want to use a good term we might say, "Watchful waiting," but a better term would be, "Waiting watchfully," to see what will occur and when these things occur which we are reasonably sure herald acute infection, then we should deal promptly with the infected sinus in a strictly surgical way.

Two operations in my experience are better than one, and the cases of mine that have gotten well are the cases that have been operated twice—first a complete exenteration of the mastoid, followed at a later time by operation on the sinus. Normally, I dislike two operations, but when we get better results in that way we feel we are justified.

Sinus thrombosis has grown from an almost certainly fatal disease to one that is almost certainly curable if the operator takes the case in hand early and wisely. It is a thing that justifies the best method one can possibly put forth, because if we do recognize the trouble before the pus starts, before emboli have been carried to the lung or to distant parts of the body, then a thoroughly clean, surgically correct operation will in most instances end the trouble and cure the patient.

D. O. KEARBY (Indianapolis): I have thought a great deal about lateral sinus thrombosis, brain and meningeal complications in connection with otolaryngology, and have about come to this conclusion: That every case of infection about the middle ear and its adjacent cavities or about the accessory sinuses of the nose is a great potential danger to the life of the patient. Why? The most common cause of suppurative conditions of the brain and its coverings, I repeat, the most common cause is suppurative conditions in the middle ear and its adjacent cavities. The next most common cause is suppurative conditions about the nasal accessory sinuses; the next cause, perhaps, would be the epidemic meningococcic type of meningitis; the next would be infective processes in the lung, and then we have a few cases that come from foci of infection in other parts of the body. Realizing the importance of these infective cases in relation to the large venous

sinuses and the enormous responsibility that rests upon those who are to handle them, I think we are to be congratulated on having Dr. Rutherford present this valuable paper.

CHARLES J. ADAMS (Kokomo): Do I understand that you are advocating the use of non-specific protein therapy in lateral sinus infection? If so, at what period of the infection do you advise it? When I was in Europe they were using injections of milk for pus tubes in women and also for iritis. I have been using milk in eye cases, iritis particularly, very frequently, and I have been getting very beautiful results.

B. D. RAYDIN (Evansville): If I may digress just a little from the subject, and if I understand the essayist correctly, he states that thrombosis wherever it may form, is due to some disturbance of the endothelial lining, that is, if it happens outside of the brain. Ashhoff, professor of pathology in the Institute of Anatomy at Freiberg, last year gave a lecture on the subject of thrombosis and he stated that endothelial damage is not essential to the development of thrombosis, but that there are a number of different factors which are responsible for it. Of course local conditions will frequently precipitate a disturbance of the endothelial lining of a sinus which would naturally make it vulnerable to the development of a thrombus, but he mentions four different conditions responsible for a thrombus in any part of the body. First, a change in the blood plasma; second, change in the blood elements; third, change in the blood flow, which Dr. Rutherford has mentioned; and fourth, change in the vessel wall itself, that is, endothelial damage.

What Dr. Rutherford has said relative to increased leukocytes in these patients who have all the possible symptoms of sinus thrombosis, bears out two distinct cases that we have had in the last few years. One was a young man and the other a little girl. In both cases a simple mastoid operation was done and in one case five days after operation and the other four days after, they developed all the classical symptoms of sinus thrombosis. In both cases secondary operation was refused, but in making a daily examination of the blood both showed a very low white count. In these two cases we resorted to the use of leukocytic extract for the purpose of increasing the leukocyte count and it was surprising that both cases went on and made excellent recovery without opening up the lateral sinuses or disturbing the jugular vein. Since then we have been resorting to the use of leukocytic extract in all cases where secondary operation has been refused. I do not say that it is any better than the use of milk or a blood transfusion, but in these two particular cases we have had very excellent results.

O. G. BRUBAKER (North Manchester): As I understand it, the milk injections are intended for the protein effect that we get out of them in view of the increased leukocytosis, whether the infection

is in the orbit, in the lateral sinuses or wherever it may be. I should like to ask if there is any real advantage in using milk injections over typhoid vaccine, diphtheritic serum, or something of that kind. If so, what is the advantage?

C. H. McCASKEY (Indianapolis): Relative to intravenous injection of mercurochrome, if any of you have read the September 19th number of the *Journal of the American Medical Association*, 1925, you have noticed an article by Drs. Gatch, Trusler and Owen on the treatment of septicemia by gentian violet and mercurochrome. They have gone into this subject rather thoroughly, using control rabbits. They report two or three cases, and the rabbits to which they gave the mercurochrome died and those they did not give it to got well. Then in one series of rabbits they operated with mercurochrome but they did not show much improvement in the general septic condition of the rabbits by the injection of this mercurochrome; practically all of them died. I think two rabbits lived longer than the rest, but none of them got well.

Dr. Barnhill asked a question. Dr. Rutherford reports a case of Dr. Van Osdol's which was given mercurochrome. I wish Dr. Van Osdol could have been here to discuss that. Then Dr. Barnhill asked if any one ever saw such a case get well in which no operation was done. I did. The patient refused anything but a simple mastoidectomy. It went along with all the classical symptoms of sinus thrombosis or multiple abscess and finally got well. The thing that happened was that we had a metastasis of the infection to the ankle and when this was opened and drained the man got well. This is practically all that was done for him, except that he was given the ordinary medication. That was probably eight or ten years ago and that is the only case I ever knew that did get well without any surgery. That case is on record.

E. E. HOLLAND (Richmond): I do not believe when a clot has formed to the extent of closing the sinus that there can be any question but that we are dealing with a septic thrombus. This was a fulminating mastoid abscess in a child. Five days after operation the temperature went to 105, with a chill. Blood culture showed an extremely profuse staphylococcus growth in twelve hours. We gave the child mercurochrome. She weighed about thirty-nine pounds so we gave her 10 ccs. The temperature dropped and the second day went up. We took a second blood culture which showed a twenty-four-hour growth of streptococcus. On the second administration of mercurochrome the temperature went down and stayed down and the child made a complete recovery. Watchful waiting is all right.

J. F. BARNHILL (Indianapolis): I wish to ask Dr. Holland and all the others who are using mercurochrome without operation and proteins without operation, if they are sure as to their success.

It seems to me it brings us into the subject of watchful waiting. I can readily understand how many of these cases may get well without anything; but it seems to me incredible that there are some that get well by such treatment, and if we depend on that sort of treatment, and if we listen to all these reports that go on telling how easily they do get well, I think we are going to lose some of our cases. It is clinically impossible, after a thoroughly well formed thrombus has involved the sinus for a long distance and gone into the internal jugular vein, and after pus has formed in the vein, after all this pathology has taken place, does anybody know of a case where that pus has been absorbed, where the clot has disappeared and the patient has gotten well without surgical intervention?

E. E. HOLLAND (Richmond): I have recently had a very brilliant result in one of these cases with the use of mercurochrome. It took two intravenous injections of 10 ccs. one per cent solution, three days apart, to get the result; but the result was brilliant.

C. W. RUTHERFORD (closing): In Dr. Barnhill's point about the injured endothelium, it seems to me he rather contradicted himself. He said a thrombus was due to infection in every case. Let us consider the fibroid uterus that has been removed, with no infection, and in a few hours' time a pulmonary embolism takes the patient off. Another type is that due to an impaired state of health or of the blood itself; then we have the marasmic type. It is not due to infection.

Dr. Adams asked about when to use non-specific protein therapy. I think these things are indicated principally in eye diseases where we have oedema and suppuration with inflammation. They should be used early. If a patient after a mastoidectomy shows he is not doing well, you do not know whether he is going to develop a thrombus, an abscess or meningitis. What are you going to do while you are waiting? Would there be any harm in giving some of these proteins? They are presumed to be harmless in most cases.

Dr. Ravdin spoke of Dr. Ashhoff's work. That has not been available to me and I cannot discuss it. You do not have to have trauma from pent up pus in the mastoid cells, but you can have blood that is loaded with bacteria which can cut down on and injure the endothelium at some vulnerable point, so you will get there the location of a thrombus. The leukocytic extract used in the case he mentioned, to my notion, would be classified as a protein. It would have a non-specific action in that case.

As to Dr. Brubaker's question, the only advantage milk has over typhoid vaccine is that it can be given more frequently.

In regard to a clot breaking up and discharging pus material into the blood stream, in consultation with Dr. Moon about some phases of this subject he informed me that I was going back to the old

construction of the rise and fall of the temperature curve in typhoid fever; that if there was something thrown into the blood stream the temperature showed it. He stated that this is merely an accompaniment of bacterial intoxication, regardless of whether it is typhoid fever, abscess, or what not. He said it is no longer believed that enough material will break off from the thrombus to saturate the blood with bacteria.

SOME PHASES OF GALL BLADDER DISEASE*

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During the past few years our knowledge of the diseases of the gall bladder and bile ducts has undergone a complete change. With these new methods in mind better results in surgery of the gall tracts must come with increased facilities in diagnosis and treatment. It is our intention to emphasize some points as an aid in increasing the number of successful end results as well as lowering both the morbidity and mortality. With the newer aids of liver function and x-ray, both gastro-intestinal and plates after the administration of opaque drugs, these cases should come to surgery much earlier, before the effects of hepatitis and cholangitis are so severe. This factor alone will increase the rapidity of cures and save the embarrassment of patients returning with pain and an occasional attack of nausea. A careful, well taken history many times will lead us to suspect gall bladder disease but physical examination will not show enough findings to warrant surgery. It is this class of cases which originally was referred back to the family physician that the writer wishes to emphasize.

The interest in, and attention paid to, the diagnosis of the functional capacity of the liver to carry on its work has been one of the very important observations of the past two years. The attention paid this subject in medical literature of the past year or two has hardly been equalled by that given to any other topic. It has been known that little was understood concerning the functional capacity of the liver and this was due, of course, to the absence of reliable diagnostic methods for its determination. The problem has a very direct bearing on end results in surgery because poor results have many times followed good surgery due to permanent damage in the parenchyma of the liver and infection of the bile ducts. Increase in our knowledge of the anatomy and physiology of this very important organ has its immediate counterpart in better results both in medicine and in surgery. It is not within the compass of this short paper to enumerate the data known concerning the physiology of the liver or the biliary apparatus. The consideration of the carbohydrate metabolism of the liver, the protein

metabolism and review of the methods of formation, as at present understood, of bile pigments and bile salts would carry us far beyond our present purpose.

One of the tests now receiving great attention and much elaboration on the part of laboratory and clinical workers is the so-called Rowntree-Rosenthal test using phenoltetrachlorophthalein. The use of this substance is not entirely new as it has been prepared since 1909 but a great deal of work has been done since then to bring this test to its present stage of development. It is very definite that the test as now employed will not be the final method used as there is no question that the present status of it is only a passing phase in its further development. Very briefly, the test consists of the injection into a vein, with an ordinary syringe, of a certain amount of this substance, which is roughly based upon the weight of the patient. Five mg. are given per kilo of body weight (2.2 pounds). Five cc. of blood are taken at the end of fifteen minutes and again after an hour and the amount of dye in the blood serum removed after clotting is determined with a colorimeter. There should be found from three to five per cent of the dye at the end of fifteen minutes and at the end of an hour it should all be removed. Any retention of this dye past these time limits is an indication of impaired liver function. A second test which has received much attention is the determination of the icterus index. The title of this test is perhaps slightly more formidable than its performance as it is in reality very simple. It consists in the comparison of the color of the blood serum obtained after clotting with a standard solution of 1 to 10,000 potassium dichromate. This is done very easily and quickly by any laboratory worker and gives a quick determination of the amount of bilirubin in the blood serum. The performance of this test is very closely associated with the work of Mann and his associates showing that the liver is not necessarily concerned in the production of the bile pigment in this test, namely bilirubin. It is very certain that a high percentage of it is formed outside the liver. Reference should be made to the original sources for closer acquaintanceship with this very interesting recent chapter in physiology. However, the liver seems to be the sole organ for the excretion of this pigment in health and upon this is based the search for excessive amounts of bilirubin in disease. When bilirubin cannot be eliminated normally it increases in the blood and causes the normal yellowish tinge of the blood to increase which occurs commonly in diseases of the liver and gall bladder as well as in the primary blood diseases such as hemolytic jaundice and pernicious anemia. Normally, the icterus index should be between two and five; figures over fifteen certainly represent abnormal states, while latent jaundice is indicated by figures between six and twelve.

*Presented before the St. Joseph County Medical Society, November, 1925.

Bilirubin in the blood serum is also tested for in a quantitative way by the test of Van der Bergh. The basis of this test is Ehrlich diazo mixture, well known for its use in the diazo test for typhoid fever. The direct response to the test is indicated in the change of the normal yellowish serum to a pink or bluish violet color. This reaction is very marked in jaundice from obstruction and is negative in cases of non-obstructive jaundice. The indirect test, which is obtained by further treatment of the blood serum, is positive in both obstructive and non-obstructive jaundice. This Van der Bergh test is unquestionably of value in an analytic study of jaundice and liver function. Positive results indicate impaired function. There is reason to believe that the test is not of equal value with the icterus index determination as a single individual test and this is important by virtue of the greater simplicity by which the latter test can be made. Its value has been well summarized by Shattuck and his associates who state that "the icterus index determination is of the greatest value in the diagnosis of cholecystitis and cholelithiasis without clinical jaundice. It is a definite aid in distinguishing between obstructive jaundice due to malignancy and catarrhal jaundice by showing whether the jaundice is increasing, diminishing or stationary. It is helpful also in the diagnosis of cirrhosis and malignant metastasis in the liver though apparently less so with the dye retention test."

It is probable that most of you are familiar with the work of Graham in obtaining roentgenograms after injection with sodium tetraiodophthalein. His earlier work was done with tetrabrom salts and it is possible that future work may further change the nature of the drug injected. A great addition to this chapter was obtained when it was found that gall bladder shadows could be obtained by the administration of this drug by mouth in place of the intravenous administration. Workers with this drug are very familiar with the reactions experienced following the intravenous use and when severe they are unpleasant and may be quite alarming.

Example: The patient was a woman of thirty-five who was given $2\frac{1}{2}$ gms. of tetraiodophthalein prepared with all due precautions according to the method of Graham. Before the needle was withdrawn from the vein the patient complained of most intense and excruciating pain in the back apparently centering over the lower dorsal and upper lumbar region. This pain was so intense that it was necessitating to give one-half grain morphine to get any relief. It persisted twenty minutes. With this there was an ashy grayish pallor of the skin, rapid pulse and a very marked cardiac irregularity, almost approaching an auricular fibrillation in the degree of arrhythmia. The cardiac irregularity was especially annoying to the patient because the heart beats were keenly appreciated as a form of palpitation and this fea-

ture of her reaction persisted for three days. Previous to the injection there was no evidence whatever of any disturbance of the heart in this individual who had been repeatedly examined and under close clinical observation. Vomiting appeared early and continued for ten hours. Food was unable to be taken for thirty-six hours. There was marked dizziness, weakness and prostration persisting for several days. Considerable alarm was felt over the patient's condition during her attack and this unpleasant feature of the test is to be avoided if possible by choosing from among the dyes furnished by the various chemists.

It seems to be true that the dyes from certain makers have less tendency to produce reactions than from others and this is true also in individual lots of the dye made by the same chemist. It is well to test out a new lot by injecting a small amount at the outset and to be cautious about giving it to individuals with cardiac disease. The reactions from the administration of the drug by mouth are not serious and usually very much less severe. It is possible to secure very good plates demonstrating the morphology of the gall bladder, determining adhesions, the emptying power and often the presence or absence of stones. However, it fails frequently in determining the intensity of infection. A gall bladder may be normal in shape, empty properly, contain no stones and yet be badly infected and definitely surgical. However, the method of Graham is a distinct addition in the diagnosis of biliary disease and his work is most commendable. It is apparent that these methods of diagnosis are only aids to be used by the clinician in evaluating his clinical judgment. These tests will be found usually to be most marked where the clinical evidences are most accenuated. Great caution should be used in drawing dogmatic conclusions from such laboratory tests which have not yet become stabilized.

The work of Heyd on the liver and pancreas in gall bladder infections is praiseworthy and I am sure it is from his observations that we will be guided in dealing with pathology in the upper right quadrant.

Caré must be taken to exclude the diseases simulating gall bladder trouble and especially in the atypical or non-active gall bladder infections.

Before operative treatment these patients are digitalized and their fluid intake increased. Morphine is given carefully, having in mind the impaired liver function. The anaesthesia should be abdominal block; novocain one-half of one per cent plus gas or ether—just enough of the latter to keep the patient quiet. A good exposure, with a relaxed abdominal wall, makes the work much easier and shortens the time of operation. We will not burden you with an elaborate technique but rather emphasize double ligation of the cystic duct and separate ligation of the artery with careful closure of the liver bed, leaving a dry field.

Aspiration of the large gall bladder is a distinct aid in removal. The common duct is drained in the cases of pancreatitis or stone. A small catheter is used and is brought out through the stump of the cystic duct. This reduces the scar and obtains a more rapid closure after the tube is removed. The removal of the appendix at this time is an aid in the after treatment of the diseased colon. Drainage of Morrison's pouch is routine and the tube removed from forty-eight to seventy-two hours. Morphine is given sparingly. The body fluids are maintained by giving 3,000 cc. saline daily and continuous dry heat is applied over the liver. Diathermy has been used but the results are uncertain. The post-operative nausea, that is after six or eight hours, is controlled by the giving of dilute hydrochloric acid. In the drainage cases the bile is given back to the patient per rectum and we feel this has a marked influence on the rapid recovery, especially in the common duct cases. Colonic stasis is treated with a heavy oil and daily enemata, atropin is given for the spasm and an anti-constipation diet prescribed. The follow up care at home is continued with the diet and monthly examinations or reports. In a few of these cases it has been necessary to do a duodenal drainage either in the hospital or after leaving. This will give relief and especially in the cases with pain.

THE SUMMARY OF 216 CHOLECYSTECTOMIES BETWEEN SEPT. 1, 1923, AND JAN. 1, 1926

Demonstrable glands, 216; pelvic disease, 10; ulcer, duodenal, 11; ulcer, gastric, 1; encephalitis 5; chronic pancreatitis, 5; pancreatic cyst, 1; splenectomy, 1; stones, 89; hernia, 5; deaths, 6 or 2.77 percent.

SUMMARY OF 47 CHOLECYSTOSTOMIES

Demonstrable glands, 40; ulcer, duodenal, 5; ulcer, gastric, 1; pelvic disease, 4; chronic pancreatitis, 12; cystic pancreatitis, 1; stones, 12; hernia, 1; deaths, 7 or 14.9 per cent.

Forty percent of all cases had stones.

Of the cholecystectomy deaths, two occurred in cases of encephalitis where the risk was high and the patients in a grave condition. These two patients died of exhaustion in four and twenty-four days respectively. Clinically, these patients showed marked rigidity of the neck, listlessness, and diplopia. It is interesting to know that their histories revealed attacks of gall bladder colic and these attacks have increased since the influenza infection of 1918 and 1919. Of the other four deaths, one from cerebral embolism took place on the 10th day, the second from broncho pneumonia on the 14th day, the third developed an acute mania with death on the 6th day and the 4th died of myocarditis on the 22nd day.

Of the cholecystostomy deaths, the first was a carcinoma of the gall bladder with stones and died of broncho-pneumonia on the 14th day; the 2nd, a case of perforated gall bladder with general

peritonitis, died of a myocarditis on the 24th day; the 3rd, a perforated gall bladder, died of an acute dilatation on the 12th day; the 4th, a carcinoma of the pancreas, died of exhaustion on the 22nd day; the 5th, a cholecystitis and pancreatitis, died of embolism on the 10th day and the 6th, empyema of the gall bladder died of acute dilatation on the 9th day. This patient was seventy-five years old.

The mortality of our cholecystectomies can be lowered in the future by draining those cases of severe gall bladder disease. In other words making it a two-stage operation. Had we done this routinely our mortality should have been about 1.5 percent.

I realize that our series is only a small one but they have all been private cases and we have been able to follow them very closely so that the end results are accurate. The patients returning with pain are fewer each year and we feel this is due to the early diagnosis of the disease together with the improved methods of following up these cases. In conclusion I wish to again suggest the use of the newer methods in diagnosis as an adjunct to our present knowledge in the hope of getting these patients to early operation before we have the severe hepatitis, cholangitis, and pancreatitis; that in the follow up of these cases the diseased colon should not be forgotten, and that it requires the co-operation of the medical man long after the patient has been discharged from surgery to obtain the ideal result.

CLINICAL OBSERVATIONS ON THE KAHN TEST*

W. W. DUEMLING, M.D.

FORT WAYNE

Since the first communication by Kahn early in 1922¹ of a simple precipitation reaction for syphilis, there have been over one hundred contributions on this test and its various phases from laboratories all over the world. This of itself is sufficient evidence of the widespread recognition that the test has received. Most of the reports appearing in the literature have been studies in which the Kahn test has been compared with various Wassermann tests^{2 3 4 5 6 7 8 9 10}, including the Kolmer complement fixation test^{11 12}, and with other precipitation tests^{13 14}. Almost without exception, the Kahn test has proven equal or superior to other methods.

At present, the Kahn test is undoubtedly the most widely used test for syphilis with the exception of the Wassermann test. It is reported together with the Wassermann test from the state laboratories of Connecticut, Oregon, Kansas and other states. It is the official test for the serum diagnosis of syphilis in the United States Navy, since December, 1925, and in the Michigan state department of health, since October, 1925. In

*Read before the Fort Wayne Lutheran Hospital Staff, May 7, 1926.

the latter laboratory alone over forty thousand Kahn tests without Wassermanns have already been reported to Michigan physicians with excellent results.** Numerous hospitals have found the test particularly adaptable on account of the rapidity with which it can be performed, and are using it alone in their routine work. One hears considerable regarding the dependability of the Kolmer test. Yet recent studies from Kolmer's own laboratory by Kelly¹⁵ and Greenbaum¹⁶ would indicate that the Kahn test is as dependable as and even superior to the Kolmer test. Thus, Kelly reported a comparative study of the Kahn and Kolmer tests in 110 cases of syphilis. Of this number there was incomplete check in five cases. Four of these were positive with the Kahn and negative with the Kolmer and only one was positive with the Kolmer and negative with the Kahn. Furthermore, out of the 105 remaining cases, five were originally negative with the Kolmer and became positive after the removal of natural amboceptor. Still another case was originally negative with the Kolmer but became positive after one month of antisyphilitic treatment.

The second paper was entitled, "Error of Basing Serum Diagnosis of Syphilis on the Kahn Reaction Alone." On examining the text one soon finds that the author's aim was to show that the same error applies also to "the Kolmer or any other complement fixation test and to express the opinion that the serum diagnosis of syphilis is best served by using both tests (Kahn and Kolmer) as routine as has been Kolmer's practice during the past year." The data in this paper is summarized in two tables, one showing fifty cases of treated and untreated syphilis in which the Kolmer was positive and the Kahn negative; the other showing fifty other such cases in which the Kahn was positive and the Kolmer negative. Thus are the findings with the Kolmer and Kahn comparable in spite of the fact that the Kolmer was carried out by expert hands in Kolmer's own laboratory while the Kahn was carried out by hands far less expert.

The first clinical studies on the Kahn test were reported by Keim and Wile¹⁷ from the Dermatological Clinic at the University of Michigan. Further clinical studies have come from Keim and Kahn¹⁸, Yagle and Kolmer¹⁹, Elliott and Todd²⁰, Dudgeon²¹, Kilduffe²², Schueren²³, and others. These reports bear out the high degree of specificity and sensitivity of the test.

In this laboratory the Kahn test has been done routinely on all blood specimens having sufficient serum, since the fall of 1922. Our results with the test as then performed were set forth by my predecessor, Dr. Grant²⁴, and were so encouraging that we have continued the Kahn test uninterrupted, together with a sheep cell Wassermann system with ice box fixation. We have kept in touch with Kahn²⁵ and his co-workers, and have

done the test as advised by Kahn, receiving our antigen directly from the Michigan department of health laboratories.

A review of our records show 3,138 bloods examined, with forty-one discrepancies in kind. Of these forty-one, twenty-two were treated cases and the remaining nineteen were patients presenting themselves for diagnosis. The table of treated cases is given herewith:

TREATED CASES

Case	Wass. Reaction	Kahn Reaction*	Treatment
C. J.	Negative	Positive 4+	2 months
V. S.	Positive 3+	Negative	20 Neos. Some Mercury.
J. H.	Negative	Positive 2+	Unknown
M. S.	Negative	Positive 3+	6 Neos. Some Mercury and Iodides.
C. R.	Negative	Positive 2+	10 months
B. M.	Negative	Positive 2+	2 months
E. B.	Negative	Positive 3+	Unknown
O. R.	Negative	Positive 2+	Unknown
A. H.	Negative	Positive 2+	6 Neos.
M. M.	Negative	Positive 1+	3 years
M. L.	Negative	Positive 2+	3 years
C. K.	Negative	Positive 2+	Unknown
C. Y.	Negative	Positive 2+	Some years ago. Now has tabes.
M. E.	Negative	Positive 3+	Unknown
I. F.	Negative	Positive 3+	1 year
M. B.	Negative	Positive 3+	3 years
S. B.	Negative	Positive 2+	2 years
D. C.	Positive 2+	Negative	3 years
R. C.	Negative	Positive 2+	4 years
M. C.	Negative	Positive 2+	1 year
M. H.	Negative	Positive 2+	6 Neos. Mercury and Iodides
F. S.	Negative	Positive 3+	14 Neos.

*Results are average readings of the three-tube Kahn test.

Through the courtesy of Dr. Chas. G. Beall the case histories of the above mentioned nineteen cases have been available, and the points of interest of each are as follows:

Case I.—Mrs. S. V. Age forty-eight. Came to the clinic complaining of fullness and enlargement of the abdomen which came on gradually for the past eight years. Had one miscarriage at five months, no pregnancies since then. Kahn test + + + +, Wassermann negative. After a provocative Neo and a course of mercury and iodides both tests were + + + +.

Case II.—Mr. F. Age sixty-six. Chief complaint dizziness. At age forty had an attack of unconsciousness, when he regained consciousness had a paralysis of right arm and leg and impaired vision. Ten years later had another stroke. Eight years later had another stroke with paralysis of right side which did not clear up altogether. Wassermann was repeatedly negative and Kahn test + +. Died following an attack of "angina."

Case III.—Mrs. E. P. D. Age forty-six. Complained of tenderness all over abdomen, with nausea and vomiting constant for past six weeks. Has had chills and fever and dizziness at times. Physical examination reveals some distention of

**Personal communication.

abdomen with peculiar semi-rigidity of muscles, otherwise negative. W. R. repeatedly negative. Kahn test ++.

Case IV.—Mr. E. E. M. Age fifty-four. Complained of dizzy spells, loss of appetite and constant distress in the epigastrium, worse immediately after meals, and constipation. Physical examination revealed pupils reacting slightly to light and accommodation. Proctoscopic examination negative except for injection of mucus membrane and much mucus. No blood in stool or gastric contents. Gastro-intestinal x-ray revealed a spastic colon. Diagnosis of mucous colitis was made. W. R. Negative. Kahn test +++.

Case V.—Mrs. W. K. Age forty-eight. Following an attack of flu has had weakness and pain in all joints for past six months. Two children living and well, no miscarriages. Physical examination reveals a pale woman, who has evidently lost weight, neck slightly stiff, but very little limitation of motion of any other joints. Tonsils cryptic containing pus. W. R. repeatedly negative. Kahn +++ and ++.

Case VI.—Mrs. J. O. Age fifty-three. Complained of "rectal trouble," consisting of passage of bloody water and pus for past three years. Six months ago diagnosed carcinoma. Operated and inflammatory mass removed. W. R. negative. Kahn ++.

Case VII.—Mrs. M. P. Age thirty-seven. Had two miscarriages. Following a Salpingo-oophorectomy four years ago patient has been very nervous, with considerable epigastric distress after meals and hot flashes. Some nausea, with bloating and belching. Constant dull headaches and frequent attacks of dizziness. W. R. repeatedly negative. Kahn test +++, +++++. Under anti-specific treatment, she improved all around.

Case VIII.—Mr. F. J. M. Age thirty-three. Past history admits G. C. at twenty-five, but denies lues. Complains of being tired and having attacks of vomiting without nausea. Six weeks ago began to have severe occipital headaches. W. R. negative. Kahn +++, ++. Under antisiphilic treatment gradually improved and blood became negative.

Case IX.—Mrs. F. J. R. Age thirty-eight. Had two miscarriages. Following last one had a severe uterine hemorrhage. On examination it was found that she had a perforated nasal septum. W. R. repeatedly negative. Kahn +++++. After six intravenous salvarsans, she reports that she is feeling fine and again able to do all her housework.

Case X.—Mrs. L. R. Age thirty-eight. Had three miscarriages. Complained of fullness of the abdomen and a tumor mass in the right kidney region. Refused complete examination. W. R. negative. Kahn +++.

Case XI.—Miss O. D. Age twenty. Complained of attacks of unconsciousness which have

been occurring for the past three years. She also has frequent frontal unilateral headaches and some dizziness. W. R. negative. Kahn +++++.

Case XII.—Mr. R. D. T. Age forty-seven. Admits having had chancre at twenty, and a month later a generalized eruption. Has had no treatment. Examination shows three small scars on prepuce just behind glands. W. R. negative. Kahn +++. After provocative W. R. also was positive.

Case XIII.—Mrs. A. F. T. Age thirty-four. Had two miscarriages. Complained of roaring in ears accompanied by dizziness with loss of vision for a few seconds. These attacks occur about every two weeks for the past ten months. Also complained of severe frontal headaches. W. R. negative. Kahn +++.

Case XIV.—Mr. C. J. Age thirty-six. Primary fifteen years ago. Never had treatment. W. R. negative. Kahn +++++.

Case XV.—Mr. D. H. Age thirty-one. Complained of constipation and pain in upper right quadrant. Admits G. C. at nineteen but denies lues. W. R. negative. Kahn +++. After three weeks of iodides both tests are ++.

Case XVI.—Mrs. M. R. Age fifty. Admitted infection by her husband. Complained of palpitation and sharp pains in praecordium. Examination reveals an enlarged liver and heart and an accentuated aortic second sound. The W. R. was repeatedly negative. Kahn +++++.

Case XVII.—Mrs. J. W. M. Age fifty-five. Had four miscarriages. Complains of ulcers in the mouth and frontal headaches. Ulcers have been present with remission for the past two years. Had a cervical and epitrochlear adenopathy. W. R. +++++. Kahn negative.

Case XVIII.—Mrs. W. K. Examination showed Argyll-Robertson pupils and absent kneejerks. W. R. negative. Kahn +++++.

Case XIX.—Miss L. B. Diagnosed tabes. W. R. negative. Kahn ++.

SUMMARY

It is remarkable to note that in 3,138 bloods examined from all types of cases, there are only forty-one discrepancies in kind. Twenty-two of these are treated cases in which two gave positive Wassermann and negative Kahn reactions and twenty gave positive Kahn and negative Wassermann reactions.

In the series of nineteen cases presenting themselves for diagnosis, the evidence at hand is in favor of lues in all but cases III., IV., and V. In only one case (XVII.) is the Kahn test negative against a strongly positive Wassermann, and this in a case of luetic nephritis with a gumma of the palate. After repeated testing in this laboratory, the serum from the patient was sent to Dr. Kahn who reported Wassermann anticomplementary, Kahn test +++. Cases III., IV., and V. diagnosed pseudocystitis, mucous colitis,

and arthritis respectively must at the present time be looked upon as discrepancies in which the Wassermann is more in keeping with the clinical findings than the Kahn test. When one considers, however, that the Kahn test was positive in fifteen diagnostic cases of syphilis in which the Wassermann was negative, the value of the Kahn test to the clinician becomes obvious.

CONCLUSION

The Kahn test is highly sensitive and specific for syphilis. The rapidity and ease with which the test can be performed makes it particularly adaptable for hospitals and smaller laboratories.

The writer desires to express his thanks to Miss Emma Branning for valuable assistance in performing the tests and collecting the data, and particularly to Dr. R. L. Kahn for invaluable instruction during a year spent in his laboratory.

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COCCYGODYNIA

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Coccygodynia is a term applied to a severe neuralgia-like pain in the region of the coccyx. This distressing condition is sometimes known as neuralgia of the rectum or rheumatism of the rectum.

Where physical injury, such as fracture, dislocation or malformation, produces bruising or periosteal or subcutaneous hemorrhage the symptoms develop promptly. In all such cases there is an inflammatory process in the muscles inserted at the coccyx, or in the surrounding soft parts or bones, and this pathologic change involves the roots of the sacral nerves. These conditions can usually be distinguished from true neuralgias by a careful bidigital examination. The slight injuries recover in a few days or weeks and the more severe ones are cured by surgical procedures.

There is, however, another class of cases which has an insidious onset, sometimes without a discoverable cause. This is a true neuralgia. The alleged physical injury may be negligible but a psychic traumatism has been produced. The suffering here may be so intense as to render the individual extremely nervous and incapable of attending to his usual duties, while the repeated attacks induce hypochondria or hysteria.

Functional nervous disease (neurasthenia or hysteria) is so frequently demonstrable as antedating the coccygeal pain that in unstable individuals it requires only some mental overwork, psychic stress or faulty living to lighten up the neuralgia. These sufferers are usually between twenty and fifty years of age although children have been reported. The majority of patients are women.

Symptoms—The predominating symptom is paroxysmal neuralgic pain which is variously described as a deep-seated pulling, stabbing, burning sensation or as a more superficial sticking pain or tingling about the anus, rectum or sacral region. The pain comes on spontaneously or in the act of sitting down, of walking or of emptying the bladder or rectum, and may be augmented by any factor which is associated with contraction of the muscles inserted at the coccyx. The coccyx is usually sensitive to pressure and to movement. There is sometimes a tender spot in the perineum pressure about which will excite the pain. Much caution must be exercised in outlining such a sensitive area lest it be mistaken for a localized inflammatory process. The patient may wince and wriggle so during the surgeon's examination as to mislead him into thinking there is pathologic change when in reality the trouble is in the mental attitude.

From its point of origin the pain radiates over the perineum, upper thighs, vulva or scrotum and is frequently accompanied with vesicle or anal

tenesmus and painful involuntary spasmodic contraction of the muscles of the pelvic floor. A given seance of suffering comes on suddenly, lasts from a few moments to several hours and as suddenly disappears; but as it leaves the individual frequently collapses from the agony. The pain may recur shortly or not for several months. Thus one patient may complain of more or less pain every day while another may be free for weeks.

Each paroxysm of suffering is provoked by movement of the muscles of the pelvic floor or perineum acting upon their nerve filaments and musculotendinous structures. Coughing, sneezing, defecation or urination may bring on this distressing pain, although the same act repeated a few hours later or the next day may have no influence at all.

Diagnosis—Coccygodynia is to be thought of in every patient presenting anal or sacral pain, but because of the more common lesions of the rectum and other pelvic organs this condition frequently goes unrecognized or is improperly treated for some other affection.

Anal or rectal lesions such as ulcer, hemorrhoids, proctitis, fissure, cryptitis, fistula, foreign bodies in the rectum, or scars of previous operations may induce suffering which simulates coccygodynia by involvement of the nerves controlling spasms of these anorectal and perineal muscles.

The close resemblance in clinical history of coccygodynia to vaginismus is to be thought of in some cases. In each condition there is an involuntary spasm of a group of muscles, some of which are attached to the coccyx or to the fibrous central point of the perineum. There need be no real hyperesthesia of the parts but there is a different sensation in the skin around the genitals, perineum and anus from that of the skin elsewhere on the body and tactile sensations coming from this region supply a different cerebral stimulation and the deeper structures pelvic fascias and perineal muscles are sensed differently from the same types of tissue elsewhere. Movement of the perineal muscles are felt differently from movement of the muscles of the arm. Vaginismus is an involuntary spasm of the sphincter cunni and other muscles of the pelvic floor by attempts at coitus or digital examination. There is present usually no real hyperesthesia of the parts, the muscular spasm being the result of a mental reflex.

Masturbation, either manual or through voluntary setting of the muscles about the perineum and thighs, may be a counterpart of coccygodynia. Hamill¹ reported a case of this character.

In studying the type of cases it is to be remembered that the feeling tone of the sexual organism is a muscular spasm. If this spasm of muscles is rightly timed and co-ordinated the organism is a voluptuous sensation but if it is premature or improperly conditioned the result may

be a painful cramp like contraction of the muscles of the perineum at least those that are concerned in the essentials of copulation. In any of the purely neurotic subjects the psychic reflex is maintained by the constant subjective discomfort of the perineum and coccygeal nerves.

The rectal crises of tabes must be carefully differentiated and as these belong to the prodromal and preataxic stages of this disease their recognition may be most difficult. The pain of tabes is a stabbing or boring sensation, shooting through the perineum or down the legs and lasting for a brief interval of time. Martin has described a peculiar loss of tone and muscle sense of the rectal sphincters. There is also diminished sensation of the areas of the skin about the anus from the coccyx to the scrotum or vulva. A sense of fullness in the rectum as of incomplete defecation or a frequent passage of a small amount of feces are often mentioned and may be mistaken for dysentery but are in reality the effects of the anal tenesmus.

Lesions of the conus medullaris, that portion of the cord extending from the filum terminale to and including the third sacral segment, are characterized by paralysis of the sphincters, of the bladder and rectum and with loss of sexual powers. There is also a saddle-shaped area of anesthesia involving the skin about the anus, perineum, scrotum, penis and the mucous membrane of the urethra and anus.

As the spinal cord terminates at the second lumbar vertebra, tumors or injuries below this point produce nerve symptoms only in so far as they compress or destroy the lumbar or sacral roots (cauda equina). If partial there results paralysis of the groups of muscles and circumscribed areas of anesthesia with radiating pain in the course of the affected roots. Thus there may be lancinating pain in the anal and rectal canals or there may be rectal incontinence. In an exceptional case there may be isolated paralysis of the bladder or rectum. Besides tumors in the membranes of the cord or on the nerve roots, fractures or spina bifida may produce these same symptoms.

Treatment—The prognosis of true coccygodynia should always be kept in reserve.

The prolonged application of heat has been of much value. Each day our patient is given a hot rectal douche at 105 degrees F. for ten minutes and this is followed by a hot sitz bath at 110 degrees F. for thirty minutes. Some patients feel faint when taking this hot sitz bath and we have substituted the hot pelvic pack.

For this purpose a comfortable couch has a woolen blanket spread out on it in such a way that when the patient lies down upon it the sacrum will rest in the center of the sheet each way. Another woolen sheet is folded diagonally, like a napkin bandage, and laid across the table with the apex pointing down and the base at such a point that as the patient rests upon it, the upper

edge of this blanket will be two inches above the umbilicus but well within the upper limit of the under blanket. Another woolen blanket somewhat smaller is also folded or cut cornerwise and wrung as dry as possible out of water at 160 degrees F. and laid over the first triangular sheet. The patient now lies upon the couch face upward and in such a position that the upper border of the wet sheet will be at about the level of the umbilicus, the legs are drawn up and the knees widely spread. The apex of the wet sheet is now drawn up until it fits the perineum tightly, the apex resting upon the sternum, the sides being spread out over the abdomen as much as possible. The legs are now extended and the lateral triangles of the wet sheet are brought over one by one and wrapped about the thighs in such a way that the skin of the abdomen, hips, thighs and perineum is everywhere covered with the sheet. The apex of the triangle is now turned down over the abdomen.

The outer dry triangle sheet is now adjusted in the same way. The patient is then wrapped in the large woolen blanket first spread upon the couch. The patient's head being protected with a cool compress now rests in these wrappings for twenty minutes. This pack is changed for a second and perhaps a third application.

Each night the therapeutic lamp is applied over the coccyx for an hour.

This treatment exercises a powerful revulsive effect upon the pelvic viscera and stimulates the sympathetic nerves of these parts and is a most valuable analgesic measure.

The mental attitude of the patient is a matter of great import and may require the help of a psychotherapist. A change in the emotional status, a feeling of contentment rather than of despondency helps much. Also when definite, even though slow improvement rewards our treatment we must constrain our patients to bear with us and not discontinue our treatment too early.

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SPECIAL ARTICLE

GRADUATE MEDICAL INSTRUCTION IN INDIANA

Organized medicine has a definite responsibility in raising the general standard of professional talent in its membership. The greatest contribution that can be made to medical men as a class is some plan of furnishing continuous medical education. This has been attempted with great success in New York State, having been originated by a group of Brooklyn physicians who conceived the idea that better doctors can be produced through better education of the men already

in practice. The plan that has been followed has been called "The Brooklyn Idea," and a recent report of the activities of the committee of the New York State Medical Society that has been carrying out the idea furnishes some interesting and valuable suggestions.

The plan that has been followed offers to doctors an opportunity to engage in graduate medical study with the least outlay of time and money, and it can be copied in any community in which there is a county medical society and one or more hospitals staffed by men willing to teach. The purpose of the method of instruction is not to be a short cut to a specialty but merely to raise the standard of medical practice in the community. The committee points out that if every practitioner of medicine knew his fundamentals and knew the common essentials concerning the various branches of medicine, the general level of the profession would be elevated, the public would be served more efficiently, and there would be less dissatisfaction on the part of the public with the profession as a whole. In turn, the cults and isms would be pushed into a more limited field, finally to die from lack of employment, for it must be admitted that poor medicine and the mistakes of the weaker of our professional brethren have made possible mushroom cults that hide their hollowness within the confines of high sounding titles. With an appreciation of the need of better doctors, a few physicians in Brooklyn, conceived and have carried out a scheme to give to the community doctors whose standards of knowledge have been raised, and whose sum total of knowledge and skill have been increased, by taking advantage of graduate instruction that is given at a minimum expense and inconvenience to the busy practitioner.

The original plan of this graduate education has been subject to but minor changes in three years since its inception and is now being carried out in various counties in New York State. Extension and intensive courses are given. Extension courses comprise from eight to twelve hours of work, which are two hours a week. An intensive course is from thirty to fifty hours and each student is given from four to eight hours per week. Each course is limited as regards attendance. The average number accepted for an extension course is about ten, and for the intensive courses from four to eight. An odd course is arranged now and then to accept greater numbers.

A fee is charge sufficient to cover the overhead expenses and to insure attendance at the classes, ten dollars for the short courses and from twenty-five to fifty dollars for the intensive courses. Special courses in anatomy and various branches of surgery have been arranged during the summer months and fees as high as two hundred dollars have been charged, but these are exceptions. Over eighty per cent of the most popular courses are the short, eight to ten hour ones. The courses are

given in hospitals where patients suitable for clinics can be provided.

Men capable of teaching their specialties are selected to conduct the work. Each man is permitted to use his own method of teaching. The subject is first reviewed as to fundamentals, and with the fundamentals covered, the actual case is considered. Typical cases from the wards of the hospital are studied. The student is permitted to examine the patient in a majority of instances, and diagnosis is made and treatment considered. When a man finishes ten hours of such work he is not advanced one step nearer to a specialty, but he has increased his knowledge and skill in one selected subject and hence is a better equipped man.

As carried out in Brooklyn, the doctor who desires to take a short course, for instance, fills out an application card and incloses with it his check for ten dollars. He is notified that he is accepted as a student or, if the course he has selected is filled, he is so notified and his money is returned to him with the suggestion that he make application if the course is offered again. When sent his admission card he is notified to report to the selected hospital every Tuesday and Thursday at four p. m. for four weeks. The hours of study have been arranged at times best suited to the majority of men actively engaged in the practice of medicine, and in Brooklyn it has been found that a period between afternoon office hours and the evening meal is the most popular. Noontime is another popular hour. The student appears at the designated room at the hospital, where he finds eight or nine other men gathered for the same purpose. The teacher has arranged his lectures and has worked up his material for demonstration. He spends an hour explaining his subject, rapidly reviewing the ground work essentials, outlining courses of reading, etc. A patient is then brought in and, as an example, the hour may be devoted to the consideration of the significance of blood pressure, how to take it, what it means, when normal and abnormal, etc. Another period may be given to measuring pelvis and estimating them; another hour to complications such as pyelitis or nephritis or the toxemias. Pregnancy in syphilis may be considered, or normal and abnormal presentation and their courses. When the student has completed his course he has a fairly comprehensive knowledge of what prenatal work comprises, its significance, and how to apply it in his everyday work. In this respect at least he is made more efficient.

These short courses may be given in medicine, surgery and the specialties. Following the "Brooklyn Idea," under the department of medicine, courses have been presented covering diseases of the heart, kidneys, lungs and pleura, gastrointestinal tract, respiratory system, diabetes mellitus and insulin, asthma, hay fever, clinical pathology, fluoroscopy and focal infection. Under the de-

partment of surgery, courses on operative surgery, surgical diagnosis, diseases of the thyroid gland, obstetrics and gynecology, courses on prenatal care, manikin, normal and abnormal labor, clinical diagnosis, ward walks and operative clinics. Under the department of pediatrics, courses have been given on the baby's first year, infant feeding, nutritional disturbances of infancy, infant feeding, practical preclinical pediatrics, and contagious diseases. Under the department of genitourinary diseases, courses on urology for the general practitioner, gonorrhea and its complications, and ward walks. Under the department of orthopedic surgery, courses on common orthopedic problems, and clinical demonstrations. Under the department on neurology, courses on anatomy and empyema, the acute abdomen, traumatic surgery, and general surgery. Under the department of histology of the nervous system: neuro-anatomy and neuropathology, diseases of the spinal cord, and clinical demonstrations. Under the department of ophthalmology, courses on the common diseases of the eye, ophthalmoscopy, and visual field study. Under the department of dermatology, diseases of the skin, common skin affections and syphilis.

The following intensive courses have been offered: diseases of the stomach and bowels, diseases of the heart, operative surgery, fractures, surgical pathology, selective anesthesia, applied anatomy of the human body, ophthalmic surgery and a course in obstetrics and gynecology.

In 1925, forty-nine courses were given. Of this number forty-one were short and eight were intensive courses. There were 176 registrants, of whom quite a few applied for more than one course, making a total of 237 registrations.

A review of the students for 1925 showed they had been graduated from medical colleges in the following years: Before 1895, 6; between 1895-1900, 9; between 1901-1905, 20; between 1906-1910, 23; between 1911-1915, 26; between 1916-1920, 48; between 1921-1925, 37; date unknown, 7; total, 176.

Under the auspices of a special committee appointed by the president of the County Medical Society, there have been given the Friday afternoon practical lectures. These are free to any licensed practitioner. Ten weekly lectures are given in the fall and ten in the spring. The lectures are held on successive Fridays from 5 until 6 p. m. The average attendance has been between four and five hundred at each talk.

The speaker chosen for a lecture must be either a recognized teacher or eminent in a certain line of work. Each speaker who accepts the invitation to lecture is given a topic of everyday interest and is asked to present his subject in the manner of one addressing a class of senior medical students. He is asked to avoid descriptions of operations or fields of work limited to selected individuals. Some speakers have illustrated their

talks with lantern slides, blackboard demonstrations, moving pictures, actual cases with well-prepared histories, special apparatus, and so forth. For instance: Dr. Robert L. Dickinson, talking on office gynecology, had the platform arranged to represent the work-room in a gynecologist's office, with lights, table, dressing table, and so forth, and used a professional model. Dr. Joslin, of Boston, arranged a table with all the well-known fruits, vegetables and other foodstuffs placed beside the corresponding quantity of sugar in each, to illustrate his talk on diet in diabetes. Dr. McCrae, of Philadelphia, gave a clinic on chronic joint diseases: A few patients, with their histories, were brought from the hospitals to the auditorium, where Dr. McCrae conducted a clinic, worked up to the diagnosis and outlined the treatment. Dr. Polak, of Brooklyn, in his talk on pelvic infections, as an object lesson in surgical cleanliness, walked onto the platform in a sterile operating gown and sterile gloves, saying: "Gentlemen, this is a rubber glove. Properly sterilized, it should be worn in all obstetrical procedures," etc. The late Dr. Fordyce, in talking about the more common skin diseases, illustrated his lecture with colored lantern slides. This recounts only a few of the interesting features of the lectures. Up to January, 1926, eighty Friday afternoon talks had been given. Twenty more will be given during 1926.

In order to increase the efficiency and value of these courses the committee that has been carrying out the "Brooklyn Idea" has arranged that all men engaged in giving these graduate courses shall be given lectures on pedagogy so that they may be better equipped to teach or to give an important angle on how to impart knowledge to others. The courses are often repeated every fall and spring but new courses are constantly arranged and announced.

The committee employs a full-time secretary to attend to the details of keeping records, correspondence, getting out pamphlets of courses, interviewing physicians, receiving application cards, checks and many other details.

This scheme is designed to offer to men in practice the opportunity of studying without neglect-

ing their work, being away from their families, or suffering financial costs. It is now in its fourth year in Brooklyn, and is being followed in a number of counties throughout New York State. Last year the New York State Medical Society appropriated five thousand dollars to aid in carrying on this graduate instruction throughout the various counties of the state, and it is expected that this year the State Association will appropriate ten or fifteen thousand dollars in further developing the work.

We have described this so-called "Brooklyn Idea" in detail, quoting liberally from their report, with the idea of interesting the medical men of Indiana in this proposition. We commend it to the Committee on Medical Education of the Indiana State Medical Association in the hope that the committee will, at the West Baden session, offer a specific recommendation concerning the advisability of adopting the "Brooklyn Idea" or something similar for furnishing graduate instruction to the members of our Association. The enterprise, while bringing in a considerable sum of money through the fees from students is not wholly self-supporting and, in consequence, it will be necessary for our Association to make an appropriation of funds just as they have done in New York state, to aid in establishing and maintaining the project. We can well afford to do this, for our treasury has a substantial balance on hand, and we believe that continuous education of the practicing physician is one of the most valuable contributions that we can make to our members. As pointed out by the committee of the New York State Medical Society, any community with a hospital, staff, material, and men with the will and ability to impart their knowledge to others has all the material necessary to offer to the practitioners in the surrounding and adjacent territory a means to better themselves. When a similar type of work is offered in every state in the Union the general level of medicine will have been raised. We will command the respect and confidence of the public in a greater degree because we are offering to the public men who may truly be called "Better Doctors."

CLINICAL LABORATORY STATISTICS

The first presentation of statistics with regard to the clinical laboratories in the United States appears in this issue of *The Journal*. Measures toward the establishing of efficient supervision over clinical laboratories were initiated at the meeting of the American Medical Association in San Francisco in July, 1923. A carefully worded questionnaire was mailed to all clinical laboratories, and the statistics published are based on the replies received. Meanwhile, with the assistance and advice of the officers of the various associations interested in clinical laboratories and many other experts in laboratory work, the Council prepared a schedule of principles or essentials by which a list of institutions worthy of the Council's approval could be prepared. As a result, the first tentative list of laboratories deemed worthy of

approval is published in this issue. In its relation to clinical laboratories, the Council's attitude is the same as that which has guided its relationship to medical colleges, graduate medical schools and hospitals. In brief, the Council makes no attempt to interfere with any clinical laboratory or to prevent it from conducting its affairs as it deems best. However, if the clinical laboratory desires to obtain the Council's endorsement as an approved institution, it should be willing to comply with the principles designated by the Council as essential in clinical laboratories which are acceptably equipped and maintained. Thus a supervision over clinical laboratories in the United States has been established which, it is believed, will bring results no less satisfactory than the supervision established over medical schools and hospitals—*Jour. A. M. A.*, April 3, 1926.

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EDITORIALS

EXTERMINATE MALARIA BY EXTERMINATING MOSQUITOES

Dr. David Starr Jordan, formerly of Indiana University, but now with the Leland Stanford, Jr., University of California, has an interesting article in the *Scientific American* for May in which he proposes a plan to exterminate malaria by means of a fish that eats malaria carrying mosquitoes, and calls attention to the fact that "the big mosquitoes of the North may offend by their abundance, their vociferous song, and their vicious bite, but they do not carry disease. The dangerous ones are smaller, less insistent, and with a softer voice, but they are much more likely to be poisonous." The cure of malaria heretofore has been most successful through the use of quinine which kills the malaria microbes and does little or no harm to the patient; but, as Jordan says, prevention always is better than cure, and the way to put an end to malaria ravages is to extirpate the mosquitoes. In a rainy region this is hard to do, but can be accomplished.

The worst kind of mosquitoes belong to the tropics or the regions just north of the Tropic of Cancer. At one time Hawaii was cursed by mosquitoes, and in 1904 the city of Honolulu asked Dr. Jordan to discover and send to the islands a fish that would really eat mosquitoes. A senior student of Stanford was sent to Louisiana and Texas to enter the bayous and marshes and test out various fish found there, the ultimate end of the investigation resulting in the discovery of a fish (the *gambusia patruelis*) that no doubt is the greatest mosquito killer in existence, and it is one that lives and multiplies in all available waters in Hawaii where it has been transplanted and where it has exterminated the mosquito. This fish is described by Dr. Jordan as being light brown in color, without conspicuous markings anywhere. The female is two and one-half inches long, the male rarely more than an inch. It is extremely hardy and will thrive in any still water not too cold. It flourishes in the gutters of Vera Cruz and other dirty cities in which a ditch along the street takes the place of a sewer. It does not migrate to the sea and it does not attack other fishes. It feeds on flies and mosquitoes, by choice rejecting wasps, beetles, butterflies or larger insects. Dr. Jordan hopes that these fish ultimately will be sent around the world and placed in pools

and swamps for the purpose of saving the thousands of lives that may be saved from malarial infection.

REPEAL THE SHEPPARD-TOWNER ACT

The supporters of the original Sheppard-Towner Act are asking for legislation, including appropriations, to continue the Sheppard-Towner Act for two years beyond the date originally set for it to expire. It is urged that this is merely a temporary expedient, but the record shows that this is not the case, as it is merely one of a series of extensions that will be sought if the request is granted. As a matter of fact, the supporters of the Sheppard-Towner Act are using all sorts of specious and fallacious arguments in order to accomplish their purpose and unless the medical profession makes itself heard, not through the great American Medical Association which already has taken action on the matter, but through the individual members of the profession who are asked to write or telegraph their senators and representatives, it is quite likely that the iniquitous Sheppard-Towner Act will be continued.

The Act has not accomplished what it was intended to accomplish. The maternal and infant mortality in the United States is not excessive as compared to other countries, and even if it were higher it could not be reduced by Federal legislative action and certainly no more than could be effected by legislation by the states. Furthermore, it disregards the limitations of the state's resources for health work and the possibility that to appropriate money to meet the requirements of the Sheppard-Towner Act it may be necessary for the states to curtail essential activities in other fields. The Act tends, therefore, artificially to unbalance the health program in the various states and from the standpoint of public health administration is illogical and unwise.

No state, under the Sheppard-Towner plan, can determine unbiased the relative importance of its various health problems and allot to each the money the state rightfully should give to it on account of its inherent importance. Thus, some states have the hookworm problem to deal with, whereas others have malarial fever as a need for attention. In well populated states the milk supply is a leading question. Therefore, judgment is warped by the proffered subsidy.

The distribution of money appropriated under authority of the Sheppard-Towner Act is arbitrary and irrational inasmuch as the fund is distributed equally to every state that submits to the Act, without any logical relation to needs of the state with respect to maternal and infant hygiene. The work to be done relates to infants and mothers. However, the number of births recorded are not considered in the basis for distribution of the fund. Furthermore, some states have been placed with climates and with rational distributions of populations that have prevented any serious infant

mortality problem from arising, or else such states have, through their own efforts, gone a long way toward solving such problems. Obviously, such states are not so much in need of subsidy as are others. The proponents claim that the Sheppard-Towner Act is entitled to credit for an increase in state appropriations for maternal and infant mortality, whereas in order to prove this point it will be necessary to take into consideration conditions before and after the enactment of the Sheppard-Towner Act.

The claim that there has been a decrease in the maternal and infant mortality in those states that have accepted the Sheppard-Towner Act is fallacious as may be proved by analyzing the statement which comes from Indiana. In fact, statements of this character are not properly correlated to Sheppard-Towner activities; too often are from interested sources, and not infrequently from persons who are hardly to be regarded as competent to speak on the subject. Maternal and infant health work cannot be separated from health work generally. If the government maintains supervision over maternal and infant health work in the states it ultimately must gain control over all other health activities, otherwise there may be wasteful duplication of effort and a possible working at cross purposes by the Federal and State agencies. If the Federal government extends its supervision and control, so as to cover state health activities generally, what is the future function of the state in this field if it has any?

An inconsistent feature of the Sheppard-Towner Act is the fact that it is under the control of a lay bureau. For such medical supervision as it exercises, it has to employ physicians, and even then, in the last analysis, the work of such physicians and all physicians employed by the several states under the Sheppard-Towner Act subsidies, and all medical work whatever done under the Act is under the direction and control of a lay chief. Inasmuch as the work primarily is medical work why was it not placed under the control of the public health service of the United States government, a highly organized body, under competent medical direction and logically the one to execute the work contemplated by the Sheppard-Towner Act.

If the Federal government is to be interested in mothers and babies, and that interest justifies it in subsidizing state health activities and taking over the supervision and control of them, what is to prevent it from showing a like interest in persons of other ages and providing subsidies in their behalf and in taking over the supervision and control of health work for them also. Boys and girls, the youth of the country, and men and women of all ages, are as important factors in the life of the nation as are infants and mothers. The Sheppard-Towner Act expresses great solicitude for infants and mothers. Why not have an equal

interest in youth and adults who are important factors in the life of the nation?

The medical man is no less a citizen because he is a physician, and it may be conceded that he is interested in the Sheppard-Towner Act and entitled to speak concerning it from both standpoints. It should require no extended argument to prove that the Sheppard-Towner Act is an unwise and wasteful piece of legislation which should be repealed, and if the medical man comes to that conclusion he should make known his views to the senators and representatives who are representing him in Congress.

LICENSING OPTICIANS

The London opticians are attempting to secure recognition by the Minister of Health through registration, and in their petition they claim competence to deal with errors of refraction and to detect functional abnormalities requiring special treatment by an ophthalmic surgeon. In analyzing the petition it was found that the bill proposed for adoption would debar physicians from treating defects of vision. Thus a species of medical legislation would be passed that would not only give the opticians a monopoly in the treatment of defects of vision but it would place as unwarranted approval upon the ability of opticians to recognize pathologic conditions which by neither education nor training they are qualified to diagnose or treat. Even if opticians were required to refer functional abnormalities to the ophthalmic surgeon for treatment, the fact still remains that the opticians are unable to detect functional abnormalities. A defect of vision may be due to the simple errors of construction in the eye itself which can be corrected mechanically by glasses, or it may be due to disease and the eye needs treatment apart from the provision of glasses, or the defect of vision may be due to diseases not localized in the eye but due to a pathologic condition in the body. Therefore, if a case is not rightly classified very serious injury to the patient may ensue. The Minister of Health politely informed the opticians that rules and practices prevailing in other countries, notably the United States, could not be accepted as evidence in favor of their plan, and he pointed out that the difficulty in registering opticians and approving their qualifications as opticians is one requiring careful consideration for the reason that it is difficult or impossible to determine how patients suffering from simple errors of refraction may be distinguished from those in whom defect of vision is due to some pathologic condition.

It is fortunate that in England the Minister of Health analyzes these problems so thoroughly, for here in the United States we have been very apathetic concerning the question of who shall and who shall not render services to those suffering from sickness or abnormalities of any kind, and our opticians, or as they prefer to call themselves,

optometrists, have not been content to be licensed as they are in most of the states, but now quietly are attempting to assume the legal privilege of prescribing for pathologic conditions of the eyes as they also hope to debar medical men from prescribing glasses. If our medical men had taken a little more interest in this there would not be so much laxity in the regulations pertaining to the whole subject.

RULES FOR SELECTING MEDICAL ADVERTISING

WE often have been asked as to how we distinguished between good and bad advertising and how we are able to maintain a high standard in acceptance of advertising for THE JOURNAL. Sometimes we feel that it does not pay to be good, though on second thought we realize that in the long run it does pay. However, it is a little disconcerting to us to learn that there are readers of THE JOURNAL who while endorsing our efforts to eliminate bad advertising are the very ones who will patronize the firms who are guilty of placing or offering bad advertising. This is especially true when it comes to the merchandising of pharmaceutical specialties that are not recognized by the Council of Pharmacy and Chemistry of the A. M. A. as being worthy of use by the medical profession. As an answer to the query to the main question, we herewith publish in categorical form the purposes which govern the acceptance of advertising, and the same principles are followed by the *Journal of the A. M. A.*, and nearly all of the other state medical journals in accepting advertising:

1. All medicinal preparations advertised must be accepted by the Council on Pharmacy and Chemistry for "New and Nonofficial Remedies."

2. *No advertisement will be accepted which, either by intent or inference, might result in deceiving, defrauding or misleading the reader.*

3. Extravagantly worded copy or sweeping superlative claims are subject either to revision or rejection.

4. Statements disparaging competitors' goods are not permissible.

5. Illustrations of a suggestive nature, or vulgarly worded copy, are subject to revision or rejection.

6. Statements indorsing any medicinal or dietetic product will not be published unless with the written permission of its author. No indorsement or quotation from the writings of a physician will be permitted in advertisements after his death.

7. In the advertisements of books, statements will not be permitted which claim that any book is superlative in its field.

8. Advertisements of books on sexual subjects and venereal diseases must conform with the re-

quirements of good taste in display, head lines and in text matter.

9. In the advertising of books, quotations from book reviews or from individual physicians may be used, provided the written consent of physician to such use is presented.

10. No financial advertisement will be published in which extraordinary returns are promised, nor are such statements as "absolutely safe" permissible.

11. Advertising of infant foods must conform to established fact as represented by consensus of statements in well recognized textbooks and periodical articles on infant feeding.

12. No advertisement of infant foods will be accepted which reflects unfavorably on breast milk, or on properly modified cow's milk.

13. Advertisements of medical journals carrying announcements of proprietary medicines not approved by the Council on Pharmacy and Chemistry will not be accepted.

14. Commercial laboratories which are conducted in an ethical manner may be advertised.

15. Commercial laboratories must limit their services to laboratory diagnostic procedures, and must not engage in diagnosis and treatment of disease of patients coming directly to the laboratory. The provision of special facilities at the laboratory for the use of physicians in the administration of remedies, or for the withdrawal of specimens, is considered a violation of this clause.

16. Laboratories may state the names of the permanently employed personnel, including consultant staffs, provided such consultants actually function.

17. Advertisements will be accepted for products which are *official* in the United States Pharmacopeia or National Formulary if they are marketed under the official name, and if no unestablished therapeutic claims are made for them.

18. General or institutional advertisements of pharmaceutical or biological firms will be accepted provided: (1) that the firm's business is not chiefly that of handling unaccepted proprietaries, or (2) the firm deals in the main with official preparations.

19. Advertisements of tooth paste, cosmetics and soaps shall be limited to claims as to composition, and well recognized fact. The interpretation as to specific virtues of the product dependent on composition must be substantiated by acceptable evidence.

OUR POLITICAL PLATFORM

Our Legislative Committee has formulated the political platform of the Indiana State Medical Association which is as follows:

1. That all persons, classes, sects or cults, who pretend to recognize and treat human disease, shall stand equal before the law.

2. That one fundamental educational standard

be required of all who pretend to recognize and treat human disease; all should submit to the same license requirements.

3. That *one board* pass on the fundamental and professional qualifications of all persons seeking a license to permit them to offer their services to the public as skilled in the recognition and treatment of human disease.

4. That the present law be so amended that it will prohibit any person engaging in practice, under any name whatsoever which has for its purpose the recognition and treatment of human disease, until these principles have been complied with.

5. That nothing shall be written into the law which can in any way be construed as interfering with any method of treatment which any person who has complied with these principles may wish to employ.

Every member of the Indiana State Medical Association should put forth an endeavor to secure the election of candidates for the next legislature who will support this platform which has as its object the maintenance of a reasonable standard of qualifications for those who attempt to treat the sick, and it should be made patent to every voter that the requirements demanded are in the interests of and the protection of the people as a whole.

FEDERALIZED MEDICAL TREATMENT VERSUS THE PRIVATE PRACTITIONER

By the Veterans' Act of 1924, Congress authorized hospitalization of veterans at government expense, without regard to the nature or origin of the disability. This treatment of disease at government expense was made available to all veterans in certain classes, without reference to the ability of the individual to provide treatment at his own expense or his right to obtain it from the state or city in which he lived. *THE JOURNAL* called attention a few months ago to efforts at extension of the scope of this federal aid. May 17, the House of Representatives passed a bill extending such government attentions to cover outpatient treatment as well as hospitalization, and enlarging the term "veterans" to include women who served as army nurses under contracts between April 21, 1898, and February 2, 1901, contract surgeons and contract dentists. This bill is now pending in the Senate.

The government cannot be niggardly in the reward it gives for military service, but treatment and hospitalization for disabilities not incurred in the line of duty cannot be regarded as a recompense for such service. As they have no logical relation to the military or quasimilitary status of the beneficiary and are not proportioned to the military service rendered, they can be regarded only as gratuities. How long before the same reasoning that has provided these nonmilitary

bounties may be expected to provide similar arrangement for governmental civilian employees? And if later the families of beneficiaries already on the rolls are placed among the elect, the step will not have gone much farther.

State medicine in this obnoxious form is with us, and is tending to grow under the patronage of the federal government. Physicians and private hospitals even now must compete with the federal government for the practice of those whose disabilities have not originated in government service and who are abundantly able to pay for treatment. If the bill passed by the House of Representatives becomes a law, the private practitioner and the private hospital will have to compete with the government, not only in providing hospital treatment for veterans, but in providing both hospital and outpatient treatment for veterans, contract surgeons, contract dentists and contract nurses. How long such unfair competition will continue is uncertain. But unless the present movement is checked, the outcome is sure: a greater and greater encroachment on the rights of the individual patient and physician.

The House of Delegates has three times passed resolutions voicing its opposition to this type of state medicine. Resolutions, however, accomplish nothing unless backed up by action. That action must come from the rank and file of the physicians throughout the country, who must make known their views to their senators and representatives in Congress. Action must be prompt if the extension of free federal medical service is to be checked.—*Jour. A. M. A.*, June 12, 1926.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely free to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in *THE JOURNAL*, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask *THE JOURNAL* about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want *THE JOURNAL* to serve you.

Ho, HUM!! And the fish are biting!

WITH winter lapping over into summer the medical men still are busy with respiratory infections. 'Tis an ill wind that blows nobody good!

THE latest fraud in medicine has been christened "Combinathics"—whatever that may mean, and it is said to include chiropractic, osteopathy, naproathy, sanipractic, naturopathy, and all the other fakes practicing under the name of drugless healers. What next?

THIS year's annual session of our Association is going to be held at West Baden. The official dates are September 22nd, 23rd and 24th, but why not take the whole week for it and enjoy a little recreation along with the scientific work? Many a tired business man goes to West Baden just for a rest. Why shouldn't the medical men do likewise?

THE Montgomery County Medical Society announces that it has completed the extension course in medicine given by the Indiana University School of Medicine and that the society considers this course very profitable for any group of practitioners. We hope to hear from other county medical societies in Indiana concerning this course, as we also hope that there will be a large number of societies that will take advantage of the offer that has been made by the University.

AN Indiana doctor is "in bad" with the members of the Anti-Saloon League and temperance people in his community because he prescribed whiskey in pneumonia, the patient got well, and the steady drinkers, knowing of the episode are crying for a repeal of the Volstead Act on the ground that the death rate from pneumonia is too high in consequence of prohibition. This is a new one on us, for we had thought that the statistics concerning snakebite are the ones to be followed in arguing for a return of pre-Volstead days.

A FEMALE evangelist in California turned up missing under peculiar circumstances. A cold-blooded police department is suspicious, and perhaps with good reasons, for the spectacular return of the evangelist and her rather inconsistent explanation of the episode were not such as to inspire confidence. As a matter of fact religious enthusiasts and fanatics have been known to do some queer things either for a personal thrill, as an advertising stunt, or to create sympathy. These cases are proper subjects for the study of a psychologist.

WE hope that the members of our Association read the information contained in "Truth About Medicines" published every month in *THE JOURNAL*. In this department will be found a brief description of New and Nonofficial Remedies accepted by the Council on Pharmacy and Chemistry of the A. M. A., and in addition considerable information concerning misrepresented drugs or methods of treatment. In our judgment these departments are some of the most valuable in *THE JOURNAL*, and no member of the Association should miss reading them.

INDIANA medical men are at present receiving circulars concerning the Zoalite lamp and its wonderful therapeutics value. We desire to point out

that the Bureau of Investigation of the A. M. A. has reported that the radiant energy emitted by the Zoalite lamp is not unlike the radiant energy produced by an incandescent body such as a bar of hot iron or the filament of a tungsten lamp. "The therapeutic value of the Zoalite lamp is precisely that of other sources of radiant heat." In view of these facts, why not use a large tungsten lamp with a reflector, which may be procured at almost any electrical supply shop at a very moderate cost?

IT is reported upon what seems to be reliable authority that the chiropractors in Illinois pay society dues of one hundred twenty dollars per year, and that the state organization of chiropractors have one hundred fifty thousand dollars in their treasury all of which they intend to use in putting over a chiropractic bill at the forthcoming session of the Illinois legislature. You reputable Indiana doctors who growl when you pay seven dollars as annual dues to the Indiana State Medical Association ought to ponder over this subject a little and see if you cannot come to the conclusion that you are "tight wads" as compared to the chiropractors!

DUE to the fact that a number of lives have been lost as a result of the promiscuous use of many of the so-called goiter remedies on the market, a coroner in Wisconsin warns the public against the use of any solution for the treatment of goiter after it is developed, except under a competent physician's direction. This sort of warning should be published in many Indiana newspapers that are carrying goiter advertising, and in view of the facts pointed out by this Wisconsin coroner it would be well if our medical societies would attempt to secure from newspapers a promise to suppress goiter advertising in the interests of public health in the saving of lives.

NEW YORK's medical practice act, recently put into effect, has teeth in it, and one of the first moves under the act designated to drive quacks from the medical field is to consider six or eight cases which involve charges of unprofessional conduct by physicians. The cases will be considered by the Grievance Committee which, according to the law, consists of ten medical men nominated by the principal medical societies of the state. If the charges are sustained the licenses of the guilty physicians may be revoked or other penalties may be imposed. We look for some radical housecleaning in the medical profession in the State of New York within the next few months.

WE learn that at the fountain-head of chiropractic it is generally conceded that Indiana is the best state in the Union for chiropractors as it is possible for them to practice in this state

without let or hindrance. They neither have to comply with any educational qualifications, nor do they have to be licensed, so they go merrily on their way in the process of kneading and wringing the patient's spinal column and joints as well as their pocketbooks. What we need in Indiana is a law that will make everyone who holds himself out to treat the sick comply with the same requirements, and those requirements should include a knowledge of the fundamental branches of medicine.

The Journal of the A. M. A., for May 22, 1926, issues a warning concerning the dangers of using oil of wintergreen as a therapeutic agent, and refers to fatal poisoning produced by relatively small amounts of that drug. It is recommended that the therapeutic use of oil of wintergreen should be confined to external administration in the form of a liniment or an ointment, and it is pointed out that this mode of administration sometimes is more effective than when the drug is given internally. From the standpoint of public welfare it is recommended that access to oil of wintergreen should be made impossible for children and for persons ignorant of its poisonous properties.

DURING the month of June every physician in the state should have received an A. M. A. directory information card. Every one is urged to fill out and return the stamped card regardless as to whether he or she has changed residence or office address. This information will be used in compiling the tenth edition of the *American Medical Directory*, now under revision in the Biographical Department of the American Medical Association. The directory is one of the altruistic efforts of the Association and is published in the interest of the medical profession which means ultimately in the interest of the public. It is a book of dependable data concerning the physicians and hospitals in the United States and Canada.

WE earnestly urge every member of our Association to read carefully the special article in this number of *THE JOURNAL* concerning graduate courses for the medical men in actual practice. We have quoted liberally from the comprehensive report sent out by the Committee on Public Health and Medical Education of the Medical Society of the State of New York, as we feel that that report has presented the subject so ably and it is of such great interest that it deserves extended discussion and serious consideration. There is absolutely no reason why Indiana should not adopt what is known as the "Brooklyn Idea," and we sincerely hope that our Association will take definite steps in that direction at the session to be held in West Baden in September.

THE manufacturers and bottlers of carbonated beverages are putting forth much effort in endeavoring to prove that their products are of great dietetic value and therefore should be kept regularly in every home. The question might be raised, "Why put the home owner to the largely increased expense of diluting fruit juices with a little carbonated water that does not particularly increase the palatability of the juices and certainly reduces the food value of the fruit through the dilution?" We have no word of condemnation for carbonated beverages, but we do not believe in magnifying their value as a food product, and they certainly do not deserve to be rated as belonging to the preferred class as advocated by those most interested in their sale.

COUÉ' is dead, and with him dies the species of suggestive healing for the sick, temporarily popularized by the "Every day in every way," etc. Throughout all time there have been schemes for curing the sick without reference to the cause of the sickness, and they have lived and thrived for very short periods only, just like the Coué treatment, and usually have fattened the pocketbooks of the promoters just as was the case with Coué. It is reported that during the last few weeks of his life, Coué called in a physician, just like other sick mortals if they have any sense. In the last analysis, it is the trained and well-educated physician who is the one who should be trusted to treat the human body for its pathologic disorders. It is passing strange that this fact is not more generally appreciated and applied.

THERE are altogether too many uplifters trying to regulate the world concerning insignificant matters while they overlook the larger things and the things really worth while. So many of these uplifters are nothing more than "meddlesome Mat-ties," and they really deserve a punch that will put them down with a sickening thud. We have in mind several enterprises sponsored by enthusiasts who are attempting to make mountains out of mole hills, and trying to force their pet theories and recommendations upon a public that needs so many other more vital alterations in the moral, social and economic conditions of the people. A lot of this energy is wasted, and we wonder why some Napoleon can not marshal all of these forces and get them to work for some big thing that is really worth while.

THE Hammond Chamber of Commerce, assisted by the Hammond Medical Society, held a public meeting on May 13th for the discussion of some topics concerning individual and community health which are of interest to the laity. The meeting was addressed by J. C. Bloodgood, M.D., associate professor of clinical surgery, Johns Hopkins University, Rev. C. B. Moulinier, of

Milwaukee, and Alan Craig, M.D., of the American College of Surgeons, of Chicago. The meeting was largely attended and pronounced one of the most successful health meeting ever held in the state. This is the kind of work that counts in the promotion of trustworthy information on health topics to the public and should be duplicated in every populous community of the state.

INDIANA doctors not infrequently receive neckties, safety razors and other merchandise sent to them with the request that if they are satisfied with the articles after inspection, check shall be sent to the firm that is soliciting business in that way. Usually the merchandise received is not worth the price that is asked for it, and oftentimes it is not wanted at any price. In connection with this matter we desire to remind our readers of the facts, as pointed out by Better Business Bureaus, that:

"1. The recipients of unordered merchandise are not obliged to return it;

"2. They are not obliged to pay for such merchandise;

"3. They are no doubt morally obligated to give such merchandise ordinary care until the company sends a representative to claim it."

IN signing the new medical practice act recently passed by the New York State Legislature, Governor Smith called attention to the requirements for the practice of medicine and use of the title "Doctor." He had the following to say:

I regard it as highly important that the ignorant and the unthinking be not misguided by the use of the title "Doctor" because it presupposes in the minds of a great many people a knowledge of the human anatomy sufficient to enable the holder of such a title to diagnose and prescribe for all the ills the human body is heir to. The title "Doctor" should be made by law to mean what the great majority of people believe it means, and it should not be promiscuously bestowed upon individuals so lacking in proper qualification as to be unable to tell the difference between indigestion and hydrophobia. There is no function of government to my mind more important than the preservation of the public health.—*Jour. A. M. A.*, May 29, 1926.

CONCENTRATION of city doctors in one building is quite popular at the present time and has much to commend it. Chicago is to have a new twenty-three story professional building for doctors and dentists, to be completed early next year. It will provide a permanent home for all the medical and dental societies in Chicago, and will create a commercial center for the leading medical and dental supply houses. Many of the southern states have professional buildings that would do credit to Chicago or New York. In Indiana there are professional buildings in Indianapolis, Fort Wayne and several other cities, such buildings being devoted exclusively to professional men. These enterprises not only offer a paying investment in which doctors oftentimes are asked to place their

surplus funds, but they can be built to meet the special requirements of members of the medical and dental professions.

THERE is much evidence to indicate that many physicians are taking advantage of the opportunity to secure free services from the state laboratories for patients who can and do pay the family physician for the service. This is a species of dishonesty that helps to lessen respect for the medical profession. Probably the medical men are not given to deception and trickery any more than men following other vocations, but as a matter of fact the very nature of our calling justifies the public in believing that we are a little higher in the scale of business ethics than others, and we ought to live up to our implied obligations of being honest with ourselves as well as with our patrons. On the other hand, the state should not furnish free medical service to its population who are not indigent, who are not in any sense wards of the state, and for purposes not concerned with the enforcement of health regulations.

INFORMATION from Norway indicates that patents have been issued to some enterprising chemists who seem to have found a way to add vitamins to food fats like butter, margarine, lard, olive oil and other fats and oils, and to make other kinds of foods such as chocolate, milk products, meat extracts, cream, honey, etc. Aside from the fact that it does not seem necessary to add vitamins artificially to our food supply, the question arises as to the dangers of permitting manufacturers to doctor up poor food products so that they will pass as the genuine product. Probably some effort will be put forth in this country to reduce and make ineffective the restrictions now in force through our pure food laws. It is up to our medical profession, perhaps guided by the advice of our food experts, to prevent any change in our existing pure food laws that will make it possible for any form of adulteration or alteration of foods that will in any wise destroy their nutritive value.

AN Indiana man carrying accident insurance recovered three weeks' total disability indemnity on three different occasions on the claim that an eye inflammation was due to injury from a foreign body. A doctor, a member of his local medical society, attached his signature to a statement alleging that the disability for which indemnity was paid was due to the injury as claimed, when in reality he recognized and treated the patient for a syphilitic iritis. How much respect for that medical man can any one have who knows the facts? Is it any wonder that indemnity companies are suspicious of medical testimony? Furthermore, wouldn't it be appropriate for a medical society to expel that man from membership if the

facts are presented? We are of the opinion that as medical men we lose a lot of our own self-respect when we refuse to take notice of deception and dishonesty on the part of any members of our reputable medical societies.

A PHYSICIAN who has been studying in Europe for several years and has just returned to his home in the United States says that he is amazed at the increasing general disrespect for law and order in the United States. He says that while economic conditions for the average man may be deplorable in Europe, still there is a certain morale in all activities that is maintained and might be followed with profit by citizens of the United States. There is less graft there among public officials and private citizens, and law-breakers receive prompt and summary punishment, with none of the delays and ultimate defeat of justice so common here. Even the medical quacks and charlatans receive severe punishment when the evidence is conclusive. The United States may be the country of opportunities, and is gloriously free, too free in fact, but we shall be obliged to curb the general tendency toward disrespect of law and order, if we are to be saved from some very disastrous results.

SO-CALLED cancer cures are a fertile source of profit to those who would exploit the sick, and the Lord knows that the average individual who is or thinks he is suffering from cancer will bite at the alluring bait thrown out by quacks and charlatans. Rarely can it be proved that the so-called cures of cancer, through the use of any of the exploited cancer cures, were really cancer. Usually the cured cases are all superficial sores which the quacks themselves have called cancer, or which the victims have believed to be cancer because some doctor has told them so, though without really making an intelligent diagnosis. The medical profession is hearing a good deal about the Koch Cancer Cure, which at the present time is being well advertised and exploited to medical profession and public alike. The Bureau of Investigation of the American Medical Association has paid its respects to this so-called cure through the *Journal of the A. M. A.* It will be interesting and perhaps profitable for medical men to read that expose.

MOST of the fluid proprietary remedies formerly advertised in newspapers owed their virtue and tonic qualities to the presence of considerable quantities of alcohol. In fact, the most well advertised proprietary tonics and blood purifiers were nothing more than poor cocktails with sufficient kick in them to give the deluded patient who took them a sense of well being after every dose. With the advent of prohibition it was said that these medicinal cocktails lost their virtue through the necessity of cutting down the alco-

holic content. In consequence many steady tipplers, including not a few preachers and rabid prohibitionists, have not found their favorite proprietary medicine quite as effective, and they have been wandering, figuratively speaking, from pillar to post in an endeavor to find something else with a kick in it. Recently we have learned that some of the proprietary medicine manufacturers, who were getting rich out of medicinal cocktails sold to the unsuspecting, have found a way of beating the prohibition game and now are exploiting products that give the same old kick that was obtained in preprohibition days. As the old darky says, "Surely the world do move."

MANY well-established pharmaceutical houses for commercial gain are attempting to create a demand for very ordinary pharmaceutical preparations that are given a fanciful name and to which are ascribed unusual therapeutic qualities. Altogether too often these preparations are not made according to the published formula, and the deception is for the purpose of creating an exclusive sale of the preparations. We have no quarrel with the manufacturer who submits his special products to the Council on Pharmacy and Chemistry of the A. M. A. for approval, and then markets them according to the fair and honorable rules laid down by the A. M. A., but we do condemn unreservedly the attitude of the manufacturing chemist who refuses to have his products approved or endorsed, and tries to sell them to the medical profession on representations that can not be substantiated. All of which leads us to suggest that every reputable medical man should refuse to prescribe proprietary remedies the exact composition and nature of which is unknown to him through approval by the Council on Pharmacy and Chemistry of the American Medical Association.

THE American Medical Association has placed its stamp of approval upon certain clinical laboratories which are conducted according to principles or essentials formulated as necessary for a perfectly trustworthy laboratory. The Council has made no attempt to interfere with any clinical laboratory or to prevent it from conducting its affairs as it deems best. However, if the clinical laboratory wishes to obtain the Council's endorsement as an approved institution it should be willing to comply with the principles designated by the Council as essential in clinical laboratories which are properly equipped and maintained. At present Indiana has a limited number of clinical laboratories which have received the Council's approval but it is hoped that in the near future this number will be very largely increased. The approved institutions are as follows:

Fort Wayne Medical Laboratory, B. W. Rhamy, M.D., Director, 327 West Berry Street, Fort Wayne.

The Physicians Laboratory, Inc., August O. Truelove, M.D., Director, 434 West Berry Street, Fort Wayne.

Indianapolis X-Ray and Clinical Laboratories, W. E. Pennington, M.D., and W. H. Foreman, M.D., Directors, 604 Medical Arts Building, Indianapolis.

The Laboratory for Clinical Diagnosis, Harry K. Langdon, M.D., Director, 404 Hume-Mansur Building, Indianapolis.

TONSILLECTOMY is getting to be a very common operation and its performance is attempted by altogether too many men who through neither training nor experience are qualified to do the operation in a satisfactory manner. In consequence a good deal of bad tonsil surgery is being done, and we learn that the bad results from the operations have been responsible for a large number of malpractice suits throughout the United States, and the number is growing. Perhaps many of these suits depend upon injudicious criticism of brother practitioners, aided and abetted by commercial lawyers. At all events, the bad results from tonsil surgery are worthy of more consideration on the part of the profession as a whole than has been given it and this, of necessity, means that doctors should be less given to carping criticism, though we never yet have felt that the ignorant and untrained doctor guilty of bunglesome and mutilating surgery deserves any special protection. However, there is altogether too much criticism not founded upon facts, and sometimes this form of criticism is most likely to create a disturbance. Perhaps a good rule for most doctors is this: If you cannot speak well of a confrere or his work, it is better to say nothing at all, but whenever you conscientiously can uphold him, you should do it.

SEVERAL Indiana doctors owned common stock in a commercial enterprise which recently went into the hands of a receiver. An attorney was selected to look after the interests of the stockholders, and about the only thing that he did was to make an appearance in court and agree to the sale of the assets of the company to a reorganization committee. For this simple service, requiring very little time and no particular legal acumen, the court awarded a fee of twenty-five thousand dollars. If a doctor charged twenty-five thousand dollars for one year's constant work which resulted in the saving of a human life, he, figuratively speaking, would be hung to the nearest lamp post, and yet a lawyer with a "pull" can get a fee of twenty-five thousand dollars for a trivial service and nothing is thought of it, and the legal profession itself upholds the robbery. If a doctor occasionally gets what is called an exorbitant fee, though never one equal to that which a lawyer obtains with striking regularity, the medical profession shrugs its shoulders and even criticises the doctor who has had the courage to charge a well-to-do patient a fee that is consistent with the services and the ability of the patient to pay. The subject is worthy of serious consideration, for when all is said and done, medical men have no

one to blame but themselves for the low estimate placed upon the value of their services.

CLARKSVILLE, MISSOURI, is not only the home of a drugless cult but a so-called "college of perfect sight" in which it is taught that glasses never improve the vision to normal and should be discarded because they are not only unnecessary but worthless. The generally accepted theory of Helmholtz concerning accommodation is discredited, and the claim is made that accommodation is caused by changing the eyeball length rather than the convexity of the lens. The system taught at the Clarksville College of Perfect Sight is based upon the exploded and discredited theories of Bates, of New York, who profits by catering to a gullible public through advertising. The very specious plea is made that the action of the muscles controlling accommodation and the shape of the eye must be trained by the conscious mind and imagination. The results secured from the methods are said to be "in direct proportion to the willingness of the patient to work in following instructions to the letter. Half-hearted application of the treatment will not produce best results." This sounds a good deal like the Christian Science doctrine that has an alibi for failures that occur as the direct result of conditions over which mind has no control. We are of the opinion that this new "college" (a travesty upon a name) is another means of teaching so-called students a method of extracting money from a gullible public without giving anything in return, and in the many cases where no results are secured there is always the ever-ready alibi that that patient has not permitted his "accommodation to be trained by the conscious mind and imagination."

MANY doctors think that they lose patrons by adopting business methods in the collection of bills for professional services rendered. As a matter of fact the contrary is the case. Prompt payment makes friends and slow payment often makes enemies. Seldom, if ever, does a reputable doctor fail to extend appropriate leniency to the deserving poor, but there are very few people who can not afford to pay something, be the amount ever so small. It would be far better for those in moderate circumstances, if their self-respect is to be preserved, if given an opportunity to pay within their means. There is another class of individuals who when once leniency is shown them, whether deserved or not, expect it at all times and take advantage of it. If pressed for payment, either early or late, they seemingly take offense, for usually they are ungrateful patients. The loss of their patronage means nothing. Usually they are better friends if made to make some kind of a settlement of their accounts. In short, the average doctor never has profited by failure to adopt ordinary business methods in the collection

of that which is due him, remembering at all times that leniency and charity should be extended where due. The criticism that can be aimed at the majority of doctors is that they extend leniency and charity where *not* due, and seldom, if ever, in such instances is it appreciated, and oftentimes it is a positive detriment to the physician.

MORE and more are we impressed with the proficiency and efficiency of the New York State Board of Health, and especially its effort to promote individual and community health through public education. Health news and health advice seem to be going out to the public daily, and there is no question but that the constant circulation of this propaganda has its effect in bettering health conditions in the state of New York. The attempt to wipe out diphtheria in the state is but one item in the progress of disease prevention and eradication. We realize that the legislature of the state of New York appropriates much money to carry on this work, a great deal more than the Indiana legislature appropriates for similar work in this state. However, it is pertinent to ask why the Indiana State Board of Health makes such a lamentably poor showing in the work of educating the public concerning health problems. We are aware of the fact that our Board issues a very flowery report as to what is being done in this state to improve public health conditions, but when you get right down to cold facts just how much evidence is there to show that the boasted activities have accomplished much. Neither the public nor the medical profession asks for spectacular effects, but it does ask for something more than the limited routine work, and it is expected that our Board of Health will not "go to sleep at the switch," but be on a par with other states that have no more money nor facilities than is afforded in Indiana.

CHESTERTON, Indiana, has had a controversy that got into the courts concerning the diagnosis and quarantine of a reputed case of scarlet fever. The court quite properly sustained the health officer in the decision that the case was scarlet fever and that the continuation of the quarantine was justified. The newspaper reports giving an account of the evidence presented seemed to indicate that there was considerable ill feeling existing between the physicians who took part in the legal controversy and in view of the publicity that was given the whole affair we conclude that scientific medicine has received a jolt that is unwarranted. There may have been honest differences of opinion and it appears to us that these differences could have been settled amicably without resort to personal animosities and court action with all of its disagreeable features and the resulting disrespect which a portion of the public must have for medical opinion. Public health

officers should be sustained in their efforts to protect the public as much as possible from communicable diseases but we do not believe that the difference of opinion between public health officers and private practitioners of medicine ever should be carried to the point where court action is necessary to settle the dispute, and in the case under consideration the evidence presented seems to indicate that vindictiveness in satisfying personal grievances was more an issue on both sides than the mere decision of the diagnosis of scarlet fever and the necessity for maintaining quarantine for the prescribed length of time. We are offering no support nor sympathy to either side of the controversy but we are offering condemnation of an attitude that has led to such a disagreeable and damaging hearing in court of a matter that never should have been given such prominence.

SYMPATHIZERS with the Lord's Day Alliance have received a jolt from Arthur Brisbane who says, "Respectable sincere men and women say they will have nothing to do with Philadelphia's Sesqui-Centennial unless it closes on Sunday. Have they asked themselves why the Ruler of the universe does not close up the fine exposition at Niagara Falls, why the birds do not stop singing or the sun stop shining on Sunday?" In the same paper will be found a news item to the effect that Sunday golf under the indulgence of the pastor of the Congregational church was begun in an Iowa town. Twenty-five members of the class played around the golf course and then hurried to Sunday school and church in knickers. They were welcomed by the pastor who declared that golf is a clean game for early morning awakening and much better than church going for the late sleeper. Why is it that some of these well-meaning but fanatical and over-zealous religious enthusiasts cannot get it into their heads that educational entertainment like that offered by Philadelphia's Sesqui-Centennial, and clean and wholesome recreation like playing golf makes for healthier bodies and better morals if indulged in on Sunday instead of the demoralizing conduct under cover that is practiced in any community where blue laws prevail? We believe that the church is one of the greatest civilizing agencies of the world, and the teachings of the lowly Nazarene are uplifting and worthy of the serious acceptance by everyone, but we cannot endorse the activities of those who would compel everyone to adhere to blue law ideas, with the inevitable result of creating rebellion against a plan of human conduct that does not make for healthier bodies and cleaner minds. Religion is not something that can be crammed down the throats of people whether they like it or not.

CONCERNING free medical service to the well-to-do in the name of health conservation for the community, a well known member of our Associa-

tion informs us that the public schools in his small city, aided and encouraged by the Parent-Teachers' Association and a number of other uplift organizations, pulled off a stunt that for downright imposition takes the cake! The uplifters gave out the information publicly that enlarged tonsils and adenoid tissue are the cause of much ill-health as well as mental backwardness in children and that to correct this evil in the schools of the community an operative clinic would be held regularly on every Saturday morning, at which parents could bring their children for operative attention without charge, and that, figuratively speaking, the clinic would continue until every last tonsil in the community had been slaughtered. However, these uplifters counted their chickens before they were hatched, as a few self-respecting medical men who had been counted upon to do the work refused to be a party to such stimulation of dependency, and to add to the difficulties a given number of parents had the good sense to tell the school inspectors that they would have the tonsils and adenoid tissue removed from their children when and where they pleased, and that they would pay for the services like any other self-respecting individuals. The unfortunate phase of the episode is connected with the foolish action on the part of a medical man who, desiring to advertise himself and perhaps with a sincere desire to obtain experience, agreed to do all the work gratuitously if so permitted. When will our medical men stand shoulder to shoulder in an effort to break down this idea that the medical profession is one that can be imposed upon shamefully.

ON another page we reprint an editorial from the *Journal of the A. M. A.* concerning the iniquities of the proposed Veterans' Act, and the statement is made that State Medicine in an obnoxious form is with us and is tending to grow under the patronage of the Federal government. Prompt action is asked of physicians who are opposed to this unwarranted federal aid and who should make their views known to their senators and representatives in Congress. If State Medicine is to continue growing it will be due to the fault of the individual members of the medical profession.

Incidentally, we are having a taste of what our own state can do in the way of treading upon the toes of the private practitioner of medicine through the gratuitous service that is rendered by the Indiana State Board of Health in direct competition with laboratories and private practitioners of medicine. In reality there is ample evidence to prove that some sanitariums and private practitioners of medicine are taking advantage of the free service of the state by charging their patients for it. This places the burden of responsibility for the growth of State Medicine upon the medical profession as well as upon the public

health officials, and it is time for an accounting. We have no objection to the services rendered by the state for the indigent, but we do object to the state putting itself in competition with the private practitioners of medicine by taking pay patients from the latter, to say nothing of helping to pauperize and make dependent those who should be self-respecting and self-supporting. In other words the state should throw some restrictions around the medical service that is rendered gratuitously, and that is exactly the position that the medical profession is taking concerning the Federal government in its work in connection with the medical treatment of veterans and others.

PHYSIOTHERAPY has certain merits as well as demerits. It has been exploited by quacks and charlatans, and used without rhyme nor reason by some reputable medical men. Some have profited by the suggestive value that attaches to the act of doing something for the patient, and especially when an intricate or flashy-looking apparatus is used. However, when all is said and done, there are certain physical methods that have real value, and it is fortunate that the problem of determining in a definite and trustworthy manner the scientific value of physiotherapy, the American Medical Association has taken hold of the subject by providing for a Council that is to investigate all of the claims that have been put forth and, figuratively speaking, sift the wheat from the chaff.

The plans of this Council include the publication of a series of articles in *The Journal of the A. M. A.*, and later in book form, which will give the present status of physical therapy in all fields, including light, electricity, hydrotherapy, adjustment, massage, and other similar forms of treatment. The manufacturers of physiotherapy apparatus have indicated their desire to co-operate with this Council and have their products passed upon. This means that *The Journal of the A. M. A.* will refuse to accept the advertising of any apparatus not approved by the Council on Physical Therapy, and also that the product itself actually must do what the manufacturer says it will do. It must yield the amount of energy that is claimed for it. It must not deteriorate within a shorter period than the manufacturer says it will last. The therapeutic claims for it must be within the bounds of reason from a theoretical standpoint and must be supported by a sufficient amount of clinical evidence to justify the claims. Furthermore, all of the literature concerning this subject must be honest. That this movement will receive the cordial support of the medical profession goes without saying, for it means placing Physical Therapy on a rational basis.

TOM HENDRICKS, our genial executive secretary, has run up against the "retainer fee" proposition when employing attorneys in malpractice cases in which the Association is interested as a result of

the medical defense feature available to members. Tom thinks it is a great scheme for a lawyer to ask for a fat "retainer fee" which covers nothing more than a promise that some interest will be taken in the case. He facetiously remarks, "Why can't we work up some such scheme for the medical profession?" We quite agree with him that it would solve many of the difficulties now encountered by the ordinary medical man. In this connection we are reminded of what a notorious advertising quack said to the editor of *THE JOURNAL* one day while under observation in connection with an eye lesion that formed a part of a fatal ailment. He said: "You reputable doctors are the biggest fools on earth when you don't profit by the example of lawyers in securing a retainer fee in advance. I do it in every case. I investigate the patient's financial condition, and then I tell him that I will consider his case for a certain amount, half of which is to be paid at once and the balance upon completion of treatment. Of course, I usually scare the patient a good deal, and make him think he is worse than he really is, and then fix the fee accordingly, usually nothing less than one hundred dollars and oftentimes from five hundred dollars upward, mostly upward. If the patient offers any objection I politely tell him that if he has paid me one or two hundred dollars on account he will be interested in carrying out the treatment and doing just what I want him to do in order to secure results. I also tell him that if I receive one or two hundred dollars on account it is a stimulus for me to take some interest in his case and devote time and attention to its study and treatment. If the patient pays this retainer fee which, unlike the lawyers, I apply on his account, and later he decides to quit, or if I fail to cure him, I have been paid for my services and otherwise I probably would get nothing. I never have had the slightest difficulty in getting these payments, and you reputable doctors could do the same thing and still maintain your dignity, and your reputation for benevolence and good work." It may be argued that reputable medical men do not desire to pursue the methods of either the lawyer or the quack in the exaction of fees, but at all events, genial Tom Hendricks' suggestion may be worth serious consideration from some angle.

THE Fort Wayne attorneys have adopted a minimum fee schedule and the same has been published. We understand that it is comparable with legal fee schedules in other cities of the State. So far as we can determine by reference to the schedule, there is nothing which an attorney will do for less than ten dollars as a minimum fee, and the fee goes upward depending upon the amount of time spent as well as ability exercised. No rebate to clients is permitted, and proof of deviation from the schedule by any attorney is punishable by expulsion from the Bar Association.

We have no objection to the unity of action on the part of the lawyers in obtaining good compensation for their services, but we often wonder why the medical profession does not follow the example set. In the first place, members of the medical fraternity are required to spend much more time and money in qualifying themselves for practice, and there is infinitely more responsibility and even skill required for a medical man, and yet his pecuniary compensation as compared to that of the lawyer is poor indeed. A striking example of what a lawyer can demand and even secure is indicated in the instance that occurred in the history of the malpractice feature of our Association. One of our members was sued for malpractice. He had a policy with a well known insurance company and that company, with its corps of lawyers and wide experience in medicolegal work, secured all of the depositions and evidence necessary for the proper defense of the case. However, the member felt that he would like to have a personal attorney, and selected one of reputation in a small town, with the understanding that the fees of that attorney would be paid by our Association. This attorney kicked up a lot of dust, but in reality did little more than take copies of the depositions secured by the insurance company, and hold a few unnecessary conferences with the client. The suit never came to trial, but the attorney in question presented a bill of four hundred dollars to our Association, and that bill was paid under protest. This is not an isolated example of what the average attorney will do if he thinks he can "get away with it" and he usually does. The point we wish to make is that medical men are too poorly paid, considering the character of services rendered and the responsibility assumed. They undoubtedly are to blame for their own economic position in society. They seldom stick together in the matter of compensation, and, as a matter of fact, the physician who charges a perfectly legitimate fee to a well-to-do patient for a creditable piece of work, though perhaps the fee may be a little larger than customary in the community, seldom has the approval of his confreres in his efforts to collect that fee. Probably never in the history of legal work has any lawyer ever offered any objection to the fees charged or obtained by other lawyers, no matter how unjustified those fees were.

THE tendency among some of the large national medical organizations is to combine work with play when arranging the programs for annual sessions. This is a very sensible way of looking at the matter, for as a usual thing we have too much seriousness at the meetings of our medical societies. It is quite true that our medical meetings should be of an educational nature and provide something of value to the members and all those who attend such conventions, but there is no reason why we cannot combine a little play with

our work, and give greater opportunity for the renewal of old and the making of new friendships. The American Ophthalmological Society for several years has followed the plan of having scientific meetings in the forenoons and leaving the afternoons open for diversion, and in selecting the place for holding the conventions preference is given to those places that offer recreation such as golf, tennis, horseback riding, boating, swimming, etc. Such a plan is followed by some other large medical societies that might be mentioned, and now comes the American Academy of Ophthalmology and Otolaryngology with a plan for holding the next annual session on board a vessel that will be chartered for the exclusive use of the Association for a cruise to the Mediterranean or the West Indies. Scientific meetings will be held on board the vessel, and the recreation will be left for the time when the steamship is in the various ports of call. We mention this for the distinct purpose of encouraging the general plan of combining more play with our serious work when meeting in medical conventions. This year our state medical association holds its annual session at West Baden, which place, with French Lick only a stone's throw away, is an ideal spot for a convention at which recreation may be combined with the more serious work which calls the medical men together. Golf, tennis, horseback riding, hiking, swimming, and many other attractions are offered to make the stay at West Baden enjoyable. We hope that the members of our Association will consider that this year's annual session is an opportunity for rest and recreational enjoyment in combination with scientific work, and we feel disposed to give the members of the Committee on Arrangements encouragement in their plans to make everyone who goes to West Baden feel that his attendance has been doubly profitable because it not only has enabled him to get something of scientific value, useful in everyday work, but that he is furnished an opportunity for recreational enjoyment so much needed by the average busy physician.

DEATHS

B. F. HATFIELD, M.D., of Union, died May 30, aged seventy years. Dr. Hatfield graduated from the Medical College of Ohio, Cincinnati, in 1882.

J. H. BENNETT, M.D., of Farmersburg, died June 4, aged eighty-two years. Doctor Bennett graduated from the Eclectic Medical College of Cincinnati, in 1872.

C. M. WILLIAMS, M.D., of Kokomo, died June 1, aged seventy-eight years. Doctor Williams was a graduate of Central College of P. and S., Indianapolis, in 1881.

JOHN N. SLOWN, M.D., of Spencer, died recently at the age of seventy-two years. Dr. Slown was a member of the Owen County Medical Society, the Indiana State Medical Association and the American Medical Association.

B. F. DUDDING, M.D., of Hope, died June 9, aged forty-five years. Doctor Dudding was killed as the result of an accident when his automobile was struck by a train. He was a graduate of the Indiana Medical College, School of Medicine of Purdue University, Indianapolis, in 1906.

CHARLES C. HOUSMYER, M.D., of Dillsboro, died May 22, aged forty-six years. Doctor Housmyer graduated from the Eclectic Medical College of Cincinnati in 1904. He was a member of the Dearborn County Medical Society, the Indiana State Medical Association and the American Medical Association.

WILLIAM O. GROSS, M.D., of Fort Wayne, died June 25th at the Lutheran Hospital, as a result of heart disease. Doctor Gross was sixty-five years of age. He was a graduate of the Fort Wayne College of Medicine in 1893 and was a member of the Fort Wayne Medical Society, the Indiana State Medical Association and the American Medical Association.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE next State Conference on Social Work will be held at Lafayette, November 20th to 23rd.

THE American Hospital Association has moved into its new headquarters at 18 East Division Street, Chicago.

THE annual meeting of the National Tuberculosis Association will be held at the Mayflower Hotel, Washington, D. C., October 4 to 7, 1926.

DEDICATORY exercises were held on the evenings of June 10th and 11th for the John B. Murphy Memorial Building 48 East Erie Street, Chicago.

DR. C. E. STONE has moved from Vincennes to Bedford, where he will continue his practice of diseases and surgery of the eye, ear, nose and throat.

THE Grant County Medical Society held a meeting at Marion, June 22nd. Dr. C. F. Hoover, of Cleveland, Ohio, presented a paper on "Asthma and Emphysema."

THE Henry County Medical Society had a well attended meeting in New Castle on June 8th. Dr. Cleon Nafe, of the Indianapolis City Hospital, presented a paper on "Ectopic Pregnancy."

DR. AND MRS. FRANK E. WIEDEMANN, of Terre Haute, have recently returned from a world's tour, having left home several months ago. Dr. Wiedemann visited the interesting hospitals in the various foreign countries.

THE Muncie Academy of Medicine held a meeting at the Hotel Roberts June 11th. Dr. Henry R. Alburger, of Indianapolis, presented a paper on "The Wassermann Test in Relation to the Treatment of Syphilis."

THE Huntington County Medical Society held a dinner meeting at the Hotel LaFontaine, Huntington, on June 8th. A resolution was passed that no meetings be held during the months of July and August. Dr. C. S. Oakman, of Muncie, presented a paper.

At the recent meeting of the American Urological Association, Dr. John R. Caulk, of St. Louis, was elected president; Dr. Richard F. O'Neill, Boston, president-elect; Dr. Homer G. Hamer, Indianapolis, secretary, and Dr. James B. Cross, Buffalo, treasurer.

THE department of commerce announces that reports on automobile fatalities for the four-week period ending May 22nd, from seventy-nine large cities in this country, shows that the total number of persons killed was 487, as contrasted with 426 for the corresponding four weeks in 1925.

DR. ISAAC A. ABT, of Chicago, was elected president of the American Pediatric Society at the recent annual meeting. Dr. Roual S. Haynes, of New York, was made vice-president; Dr. Clifford G. Grulee, of Chicago, editor and Dr. Howard C. Carpenter, Philadelphia, secretary-treasurer.

THE annual meeting of the Mid-Western Association of Anesthetists will be held October 11 to 14, 1926, in Kansas City, Missouri. Headquarters will be at the Baltimore Hotel. For detailed information address Ralph M. Water, M. D., Secretary, 425 Argyle Building, Kansas City, Missouri.

At a recent meeting of the Gibson County Medical Society, Dr. A. L. Ziliak, of Princeton, was elected president of the society for the coming year, and Dr. Charles A. Miller, of Princeton, was made secretary. Dr. Miller succeeded Dr. J. L. Morris, of Princeton.

ARRANGEMENTS have been made for the opening of a branch office of the E. R. Squibb and

Sons Company at 344 Camp street, New Orleans, Louisiana, for the purpose of providing the dental, medical and pharmaceutical professions of Louisiana, Mississippi and neighboring states with fresh stocks of products kept under proper refrigeration at all times.

THE thirty-first annual meeting of the American Academy of Ophthalmology and Otolaryngology will be held at Colorado Spring, Colorado, September 13th to 18th, with headquarters at the Antlers Hotel. There will be a one-day golf tournament, September 13th, for which arrangements can be made by addressing Dr. Frank L. Dennis, 301 Ferguson Building, Colorado Springs.

In addition to the articles already enumerated the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Hoffman-LaRoche Chemical Works:

Isacen.

Schering & Glatz:

Digitalis Dispert.

Digitalis Dispert Tablets 0.08 Gm.

Swan-Myers Co.

Iodeikon Capsules-Swan-Myers.

THE United States Civil Service Commission announces open competitive examination for trained nurse and trained nurse (psychiatric). Application for these positions must be on file at Washington, D. C., not later than August 7th. The date for assembling of competitors will be stated on the admission cards sent applicants after the close of receipt of applications. Examinations are to fill vacancies in the Panama Canal Service. Full information and application blanks may be obtained from the United States Civil Service Commission at Washington, D. C.

If you ever receive an invitation to attend the Porter County Medical Society meeting, don't turn it down. Although the county society is not large, all but two of the ethical practicing physicians are members of the organization and their meetings are very much worth while. Dr. M. B. Fyfe, of Valparaiso, is president. Dr. C. H. DeWitt, Valparaiso, is secretary. The society holds its meetings once a month, and a high percentage turnout is almost always assured, as nearly every meeting, whether it is a scientific or a business session, is preceded with a real dinner and a get-together.

THE cornerstone of the new Montgomery Ward Memorial Medical Dental Center was laid on the McKinlock Campus of Northwestern University on June 11th. Dr. Charles H. Mayo of the class of 1888, gave an address on the campus in the afternoon, and Dr. Frank Billings, of the class

of 1881, at the banquet in the evening. Among documents placed in the cornerstone were a list of the faculty of the medical school from its founding in 1859 to date, a list of all graduates arranged by classes, and a list of the names of the present student body. The new building will be occupied October 1st and dedicatory exercises will be held later when the auditorium is completed.

To encourage investigations of alimentary tract function, Dr. Frank Smithies, Chicago, has presented to the School of Medicine of The University of Illinois, bonds in amount sufficient to yield annually, in perpetuity, not less than \$100.00. This fund is known as "The William Beaumont Memorial Fund" and the income therefrom, as "The Annual Beaumont Memorial Award." The award is to be made each year to the research or clinical investigator, who, in the judgment of a faculty committee, has contributed the most important work during the year, in the field designated. The first award will be made in 1927. Manuscripts covering investigations do not have to be entered specifically for the award nor is it required that they be submitted to the faculty committee. The award is to be granted by the committee after it has considered carefully all investigations published during any year in periodicals throughout the United States. Thus, the award is available to workers in any institution, and is not confined to members of either faculty or student body of The University of Illinois.

THE American College of Physical Therapy announces a prize contest, subject to the following rules and conditions:

The contest is open to licensed clinicians, physicists, and fourth and fifth year medical students from *recognized* medical schools.

The subject must be on some branch of physical therapeutics embracing galvanism, diathermy, radiant heat-light, ultraviolet light, x-rays, radium, hydrotherapy, exercise.

The paper must be limited to 2,000 words or less and must involve some problem of research, laboratory or clinical, pertaining to closely allied or actually on physical therapeutics. A short abstract of 200 words or less should accompany all papers, which are to be typewritten on one side of paper only and double spaced.

All these must be submitted to the chairman of the Thesis Committee, Dr. D. Kobak, 30 North Michigan Avenue, Chicago, not later than August 15, 1926.

The judges will be selected from the faculties of several medical schools, and will be men who are not connected with the College.

There will be six prizes (physical therapy equipment) the total value of which will exceed \$2,500. Announcement of winners will be made at the Clinical Congress to be held at the Drake

Hotel, Chicago, October 18 to 23, 1926. The winning papers will become the property of the American College of Physical Therapy and will be published in its official journal.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

May 24, 1926

Meeting called to order at 5:00 p. m.

Present: Wm. N. Wishard M. D.; Murray N. Hadley, M. D.; and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held May 10th read, corrected and approved.

The following bills were approved for payment:

The Bailey Office Supply.....	\$.80
Kardex Rand Sales Corporation.....	.75
A-1 Letter Shop, Inc.....	2.68
Dolbey & Van Ausdall.....	4.00
Central Press Clipping Service.....	8.25
Indiana Bell Telephone Company.....	14.30

Total\$30.78

The release on "Prevention of Hay Fever" was corrected as suggested by various physicians who are making a special study of this work, and was approved for publication by the Bureau upon May 31st.

The Bureau approved the release upon "Sane and Sensible Swimming" for publication.

Letter received from an office of the Aesculapian Society asking that the Bureau supply an after-dinner speaker for a meeting to be held Thursday, May 27th, at Terre Haute.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole May 24, 1926.

WM. N. WISHARD, M.D.,
Chairman.
THOS. A. HENDRICKS,
Secretary.

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

June 7, 1926.

Meeting called to order at 5:00 p. m.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D., and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held May 24th read, corrected and approved.

The following bills were approved for payment:

American Linen Supply Co.....	\$ 1.60
Gaw-O'Hara Envelope Co.....	29.20
Central Press Clipping Service.....	5.00
Hume-Mansur Company.....	2.00
Western Union Telegraph Company.....	.91
Bailey Office Supply.....	15.00

Total\$53.71

The release on "Antiseptic Surgery" was corrected and approved for publication by the Bureau on June 14th.

Request received for speaker to make a periodic health demonstration before the Jefferson County Medical Society. The secretary was instructed to obtain a speaker.

Clippings show that the article on "Spring House-cleaning," which was released by the Bureau May 12th, was copied in many papers outside the state, among them the Detroit papers and the *New York Sun*. Requests received from various sources for reprints of this article.

Questionnaire from National Research Council reported to the committee.

Hammond Health Week articles reviewed by the committee and the secretary was instructed to express the

compliments of the committee for the fine way in which the Hammond Medical Society put on its lay meeting.

Letter from Mrs. Edna Hatfield Edmondson, field worker for the Indiana University Extension Division, concerning details of expenditure for establishment of the packet library service received.

U. S. Daily, a new paper which is published in Washington, was presented to the Bureau. The Bureau expressed an interest in this paper but did not see fit to subscribe to it.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole June 14, 1926.

WM. N. WISHARD, M.D.,
Chairman,
THOS. A. HENDRICKS,
Secretary.

BUREAU OF PUBLICITY

June 14, 1926

Meeting called to order at 5:00 o'clock.

Present: S. E. Earp, M. D.; Murray N. Hadley, M. D.; and Thomas A. Hendricks, executive secretary.

The following bills were approved for payment:

The Bailey Office Supply.....\$1.75
A-1 Letter Shop, Inc. 1.66

Total\$3.41

The release upon "Chiggers" approved for publication by the Bureau to be released June 21st.

Letter received from the executive secretary of the Parent-Teachers' Association of Indiana stating that the *Child Welfare Magazine*, the official organ of the Congress of Parents and Mothers, mentioned favorably the newspaper article upon "High School Basketball and Health," which was released by the Bureau last winter.

Letter received from the president of the Indiana Parent-Teachers' Association asking the Bureau for 675 copies of the bulletin published by the Bureau warning the public against Bernarr Macfadden. The Bureau authorized the secretary to comply with this request.

Speaker provided for meeting of the Jefferson County Medical Society to give periodic health examination demonstration.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole June 21, 1926.

S. E. EARP, M.D.,
Acting Chairman,
THOS. A. HENDRICKS,
Secretary.

INDIANA STATE MEDICAL ASSOCIATION BUREAU OF PUBLICITY

June 21, 1926.

Meeting called to order at 5:00 o'clock.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D.; Murray N. Hadley, M.D., and Thomas A. Hendricks, executive secretary

The minutes of the meeting held June 14th were read, corrected and approved.

The release on "Vacations and Typhoid Fever" approved by the Bureau for printing June 28th.

Letter received from American Social Hygiene Association. Acknowledged by the Bureau.

Letter from editor of *Child Welfare Magazine* received commenting favorably upon newspaper releases of the Bureau. *The Child Welfare Magazine* is the official organ of the National Congress of Parents and Teachers.

There being no further business, the meeting adjourned.

The above minutes were approved in each separate part and as a whole June 28, 1926.

WM. N. WISHARD, M.D.,
Chairman,
THOS. A. HENDRICKS,
Secretary.

THIRD COUNCILOR DISTRICT

The Third Councilor District Medical Society held its semi-annual meeting at West Baden, May 26th. Papers were presented by Drs. Walter C. Sherwood, Mitchell; Robert M. Moore, Indianapolis, and Murray N. Hadley, Indianapolis.

The meeting was well attended and the papers were very interesting and thoroughly discussed.

The fall meeting of the society will be held at Bedford, Indiana, in October or November.

ABSTRACTS

URINARY PROTEINS

In ten cases of nephritis, proteins were obtained by William H. Welker, William A. Thomas and Ludvig Hektoen, Chicago (*Journal A. M. A.*, May 1, 1926), in the form of globular crystals from the urine. Of the ten cases, three were instances of marked hypertension, with no edema; three, of hypertension, with edema, but no decompensation; two of hypertension with decompensation; one, an acute glomerular nephritis in a child, and one, a marked generalized anasarca of undetermined origin. Of the ten patients, five have died, two in the pure hypertension group, one of hypertension with edema, one in the decompensated group, and the anasarca patient. Necropsies of the two patients with pure hypertension and with decompensated hypertension revealed no changes other than the renal, vascular and cardiac changes common in such conditions. The proteins obtained on the second crystallization have been tested with specific precipitin serums for human albumin, euglobulin and pseudoglobulin, and all three of these proteins were present in considerable quantities in the crystalline preparations from all the urines studied.

IMMUNIZATION AGAINST SCARLET FEVER

W. P. Larson and E. J. Huenekens, Minneapolis, and Woodward Colby, St. Paul (*Journal A. M. A.*, April 3, 1926), feel that they have met many of the conditions for an ideal method of immunization. By using toxin that has been detoxified with sodium ricinoleate, they have modified the toxin without altering its antigenic properties, so that a large dose of the toxin may be given without producing toxic effects. The detoxifying agent is not antigenic, and hence there is no danger of sensitizing the patient to foreign serums. By using a nonantigenic detoxifying agent, they are independent of time intervals, as well as the previous history of the patient, should re-injections seem desirable. The so-called scarlet fever antitoxin will not serve as a detoxifying agent for purposes of immunization since the "neutral" mixture is not always stable. The "neutral" soap toxin mixtures, on the other hand, are stable, and, so far as can be determined, remain so indefinitely if properly prepared and stored. Intramuscular injections of from 3,000 to 5,000 skin test doses are followed by little or no reaction. Children over 12 years of age and adults seem to be slightly more sensitive to the toxin than younger persons. The acquisition of an immunity varies, within certain limits, directly with the size of the dose of toxin, although not all age groups respond to the toxin in the same degree. The larger amounts of toxin—from 3,000 to 4,000 skin test doses—give an apparent immunity in from 77.3 to 90 per cent of the cases within eight days following the treatment. This suggests the possibility of using active immunization in fighting a threatening epidemic. In fact, the authors have successfully used this method to suppress several outbreaks of scarlet fever in institutions. As regards the duration of the immunity, 70 per cent of those who gave a negative skin test within eight days following the small dosages were still negative at the end of six months. The authors are of the opinion that the antigen should contain not only the scarlet fever toxin, but the streptococci as well, in order to develop an antibacterial as well as an antitoxic immunity.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

PITUITARY BODY ANTERIOR LOBE DESICCATED-MULFORD.—The anterior lobe of the pituitary body of cattle, separated, dried and powdered. For a discussion of the actions, uses and dosage, see Pituitary Gland, New and Nonofficial Remedies, 1925, p. 260. This product is also supplied in $2\frac{1}{2}$ grain and 5 grain tablets. H. K. Mulford Co., Philadelphia.

STERILE SOLUTION OF ANTERIOR LOBE PITUITARY EXTRACT-MULFORD.—An extract of the anterior lobe of the pituitary body of cattle. Each cc. represents the extractive of 0.2 Gm. of fresh substance. For a discussion of the actions and uses, see Pituitary Gland, New and Nonofficial Remedies, 1925, p. 260. The preparation is marketed in 1 cc. ampules. H. K. Mulford Co., Philadelphia.

PITUITARY SOLUTION SURGICAL-WILSON.—An extract of the posterior lobe of the pituitary body of cattle. It is standardized to have twice the strength of solution of pituitary, U. S. P. For a discussion of the actions, uses and dosage, see Pituitary Gland, New and Nonofficial Remedies, 1925, p. 260. This preparation is marketed in 1 cc. ampules. Wilson Laboratories, Chicago.

SCARLET FEVER STREPTOCOCCUS ANTITOXIN CONCENTRATED.—A scarlet fever streptococcus antitoxin (*Jour. A. M. A.*, May 2, 1925, p. 1338) prepared according to the method of Drs. Dick by license of the Scarlet Fever Committee, Inc.

This antitoxin is marketed in packages of one syringe containing 7 cc. (prophylactic dose) and in packages of one syringe containing 14 cc. (therapeutic dose). H. K. Mulford Co., Philadelphia.

CORPORA LUTEA SOLUBLE EXTRACT-P. D. & Co.—A solution of an extract of desiccated corpus luteum in physiological solution of sodium chloride, each cc. containing 0.02 Gm. of soluble extract. For a discussion of the actions and uses, see Ovary, New and Nonofficial Remedies, 1925, p. 251. The product is marketed in 1 cc. ampules. Parke, Davis & Co., Detroit. (*Jour. A. M. A.*, May 8, 1926, p. 1440).

PROPAGANDA FOR REFORM

BISMUTH COMPOUNDS IN ANTISYPHILITIC THERAPY.—The usefulness of bismuth in the treatment of syphilis seems to be assured; but there is pressing need of dependable evidence as to the sort of compounds of the element that is most likely to prove useful. In a study sponsored by the Therapeutic Research Committee of the Council on Pharmacy and Chemistry, Cole, Farmer and Miskdjian have demonstrated anew that the administration of suspensions of finely divided metallic bismuth is inadvisable because such preparations remain unabsorbed for long periods. This warns against the danger of cumulative action of a toxic substance. The study did not bear out the contention of some writers that insoluble salts of bismuth must be injected twice weekly to obtain a gradual, even absorption of the metal. If bismuth salicylate and potassium bismuth tartrate are injected intragluteally once a week they are not likely to give rise to cumulative action, but patients should be observed closely. When suitable preparations are cautiously employed, undesirable complications can for the most part be avoided. Cole regards bismuth as a valuable drug in the treatment of syphilis, but he urges a conservative attitude until more evidence as to the precise effect of the drug is available. (*Jour. A. M. A.*, May 1, 1926, p. 1352).

STEERE'S ELIXIR ASPIRIN COMPOUND, STEERE'S ELIXIR AMMONIUM SALICYLATE, NELSON ELIXIR OVARANS, AND ELIXIR DIGITALIN COMPOUND NOT ACCEPTABLE FOR N. N. R.—The Council on Pharmacy and Chemistry has found the following products of the American Laboratories, Inc., unacceptable for New and Nonofficial Remedies: *Steeer's Elixir Aspirin Compound*, claimed to contain in each teaspoonful, "Aspirin $2\frac{1}{2}$ Gr., Caffeine Citrated $\frac{1}{2}$ Gr., Rhubarb 1 Gr." and 50 per cent of alcohol, was found unacceptable for New and

Nonofficial Remedies because it does not have the composition claimed; because the name is not descriptive of its composition; and because it is irrational to administer a mixture containing acetylsalicylic acid, or its decomposition products, alcohol, caffeine and rhubarb in fixed proportions. *Steer's Elixir Ammonium Salicylate*, claimed to represent in each teaspoonful "Ammonium Salicylate $2\frac{1}{2}$ Gr., Caffeine Alkaloid $\frac{1}{4}$ Gr., Rhubarb 1 Gr." was found unacceptable for New and Nonofficial Remedies because the name is misleading in that it does not correctly declare the potent ingredients; because the recommendations for its use are unwarranted and their inclusion on the label may lead to its indiscriminate use by the laity; and because the routine administration of a mixture of a salicylate, caffeine and rhubarb in fixed proportions is not in the interest of rational therapy. *Nelson Elixir Ovarans*, stated to be "A Pleasant and Palatable Preparation of Viburnum Prunifolium, in combination with Symplocarpus Foet., Cinnamon, etc., with Aromatics," was found unacceptable for New and Nonofficial Remedies because it is a mixture of indefinite composition sold under a non-informing name and with claims that are unwarranted and likely to lead to its ill-advised use by the public. *Elixir Digitalin Compound*, claimed to contain in each fluidrachm "Digitalin, 1-100 gr.; Nitroglycerin, 1-100 gr.; Strychnine Sulphate, 1-50 gr.," was found unacceptable for New and Nonofficial Remedies because its composition is uncertain; because the name is not descriptive of its composition; and because it is an irrational combination marketed with claims that are unwarranted. (*Jour. A. M. A.*, May 1, 1926, p. 1384).

THE THERAPEUTIC USE OF OXYGEN.—There is a rational basis for the administration of oxygen in certain conditions, but it does not consist in the exhibition of a few whiffs of the gas through a funnel held in front of a patient's face. Ordinarily, the inspired air contains approximately 21 per cent of oxygen. It requires a decided increment of the latter in the air intake to produce effective gains by diffusion through the lungs into the pulmonary capillaries. To be of therapeutic potency, oxygen should be administered at an optimal concentration, which has lately been proposed at 40 per cent of the inspired air. Apparatus has been developed which insures the inspiration of the high concentrations of oxygen which is desired. (*Jour. A. M. A.*, May 8, 1926, p. 1455).

KOCH'S "CANCER ANTITOXIN."—In 1918, Wm. S. Koch was graduated in medicine. Less than a year after his graduation in medicine, Dr. Koch announced that he had "developed a real specific cure for cancer." Seven years have passed during which Dr. Koch has seen fit to keep the composition of his preparation to himself. During that time *The Journal of the American Medical Association* has been unable to learn of a single instance in which a case of unquestioned malignant disease has been cured by the Koch treatment. On the other hand, information was received regarding individuals who "promptly died" after taking the treatment. At different times the Wayne County (Detroit) Medical Society has appointed three committees to investigate Koch's "cure." Each of the three reports has been unfavorable. The Koch treatment has been commercialized and it seems evident that large sums of money have been spent in circularizing the profession and the public in the interest of the "cure." The latest move is the establishment of the imposingly named "Koch's Cancer Foundation" with William F. Koch as "Director." There has also been organized "Koch Laboratories, Inc.," which is the sole owner and manufacturer of what Koch calls his "antitoxin." It seems that, while stockholders and members pay \$110 for the treatment, patients are charged \$300 for the first treatment and \$200 for any afterward. The difference between the price charged the Koch disciples and the price the disciples charge the victim is presumably to cover the risk assumed by the followers of Koch in injecting his secret mixture into the cancer patient. (*Jour. A. M. A.*, May 8, 1926, p. 1469).

PROPRIETARY MIXTURES SYNDICATE.—Kansas City is, or was, the home of Proprietary Mixtures Syndicate, Inc.,

and Yonga Yoga Scientist, Inc., two imposingly named pieces of quackery operated by one Thomas W. Douglas and his wife Maye. Douglas' scheme was to sell through the mails a number of "patent medicines" which Douglas called "Formulations." His method of diagnosis was to require the birth date and from this he pretended to be able to determine what ailed the victim. The postoffice authorities investigated the scheme and on April 17, 1926, a fraud order was issued against Proprietary Mixtures Syndicate, Inc., Mrs. M. Douglas, Thomas Douglas and Yonga Yoga Scientist, Inc. The evidence showed that Mrs. Douglas had no medical training, but that Mr. Douglas claimed to have studied certain branches of medicine in this country and abroad. Douglas employed no physician, pharmacist or chemist, all the work being done by himself and wife at their home. The medicines are put up in part by Parke, Davis & Co., and one Hunter was stated to mix "different strengths" of the medicine used. The composition of the medicines was not brought out at the trial. Many of the diseases which Douglas undertook to treat were of a serious nature. (*Jour. A. M. A.*, May 15, 1926, p. 1566).

UNWARRANTED THERAPEUTICS HOPES.—Although drastic restrictions in diet no longer characterizes the management of diabetes, the problem of suitable foods for diabetic patients still looms large. Side by side with the exclusion of foods that promote either glycosuria or ketosis or both, has occurred the search for palatable energy yielding food substances that will enrich the dietary of the diabetic patient without giving rise to untoward consequences. The proposal for the use of intravin (glyceryl margarate) represented an attempt to furnish a fat not likely to promote ketosis in its metabolism. There have been varied efforts to discover derivatives of the sugars that will not escape oxidative destruction as ordinary carbohydrates do in the diabetic organism. The polysaccharide carbohydrate inulin has been recommended in the past for patients with diabetes, but it is possible that the apparent tolerance of the diabetic patients for inulin bearing foods may be due to actual failure of digestion and absorption of this carbohydrate. In Germany the anhydrosugar glucosane and its polymer, tetraglucosane, have been used in the dietary treatment of diabetes, but recent investigation has shown that large quantities of ingested tetraglucosane are excreted unchanged in the feces. (*Jour. A. M. A.*, May 22, 1926, p. 1626).

METHYL SALICYLATE.—A WARNING.—Methyl salicylate in moderate amounts is a powerful poison. While death from the drug has never resulted from its therapeutic use, instances of untoward effects following accidental or intentional self-administration have been reported. Absorption of less than 15 cc. has repeatedly resulted in death. (*Jour. A. M. A.*, May 22, 1926, p. 1628).

EKSIP FOR DIABETES.—One Mathew Richartz, of New York City, is exploiting the sufferer from diabetes through the sale of a nostrum "Eksip." The advertising slogan for Eksip is: "No More Dieting, No More Starving, Eat and Get Well." Diabetics are urged to write for a booklet entitled, "Eat and Get Well," which Richartz sends to any one who asks for it. While the newspaper advertisement leads to the belief that with Eksip no dieting is necessary, in the booklet the victim is urged to avoid foods high in carbohydrates until after Eksip has cured the diabetes. Furthermore, the diabetic is warned after he has purchased the nostrum that he should not abandon the diet to which he has been used. The A. M. A. Chemical Laboratory analyzed Eksip (which comes in tablet form). From this analysis it may be concluded that Eksip contains essentially magnesium carbonate and starch. (*Jour. A. M. A.*, May 22, 1926, p. 1641).

FREAK MEDICAL PATENTS.—The United States Patent Office is apparently unaware that there is such a thing as modern medical knowledge. Patents have been issued for bizarre products and devices of a medical or medicinal nature. These include Perkins tractors, Sanche's Oxy-

gonor, the tape worm trap of Meyers, the "consumption cure" of Serghison and several others. A patent was issued in March, 1921, to Mary McGuire Wilson for the "Process of and Material for Reducing Fatty Tissue." According to the patent specifications, the Wilson formula for reducing weight is alum, 12 ounces; camphor, 2 ounces; alcohol, 12 fluid ounces; and witch hazel, 32 fluid ounces. This mixture—which the Patent Office considers a new and useful invention—is to be applied to the skin of the "stylish stout" immediately following a hot tub. The stuff is then "whipped or spanked with the fingers to drive the solution into the pores." (*Jour. A. M. A.*, May 29, 1926, p. 1701).

CRESOG NOT ACCEPTED FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Cresog (Cresog Laboratories Co., Detroit) is stated to be "composed of a pure glycerine base with the addition of two per cent of 'Pomcresol' (manufactured by Searle and Co., Chicago), plus bicarbonate of sodium 2%." This label and advertising contain such misleading statements as: "Derivative of Cresol, also Glycerine and others." Though the Cresog label admits that the preparation has a phenol coefficient of but 0.1, the preparation is claimed to have "strong germicidal effect." The Council found Cresog unacceptable for New and Nonofficial Remedies because its composition is indefinite, its name is not descriptive of its composition, the claims are unwarranted, and the recommendations for its use such as may lead the public to place false dependence on it in serious conditions. (*Jour. A. M. A.*, May 29, 1926, p. 1713).

ROBES' ANTI-RHEUMATIC INJECTIONS NOT ACCEPTABLE FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Robes' Anti-Rheumatic Injections is stated to contain mercuric chloride, 0.9 mg.; "guaia-cum solids," 0.3 mg.; sodium chloride, 0.0066 Gm. per cc. of 8 per cent alcohol. The action of the "guaia-cum solids" is not stated in the advertising or in the information submitted to the Council. The Council found Robes' Anti-Rheumatic Injections unacceptable for New and Nonofficial Remedies because: (1) its composition is indefinite in that no data are given as to the nature of "guaia-cum solids"—which alone makes the preparation different from a simple solution of mercuric chloride in alcoholic saline solution; (2) no tests are submitted whereby the "guaia-cum solids" can be detected or determined quantitatively; (3) the therapeutic claims are unwarranted in that no evidence is submitted to show that "guaia-cum solids" makes the preparation more effective than a simple solution of mercuric chloride or that the latter has any value in "rheumatism"; (4) the amount of the potent ingredient is not declared on the label; (5) the name is objectionable in that it does not indicate clearly the most potent ingredient and is therapeutically suggestive; (6) the trade package circular advertises an unaccepted article; and (7) because it is an unscientific preparation the use of which is detrimental to rational therapy. (*Jour. A. M. A.*, May 29, 1926, p. 1713).

BOOK REVIEWS

OPERATIVE CYSTOSCOPY. By E. Canny Ryall, F.R.C.S. Founder of and Senior Surgeon to All Saints Hospital for Genito-Urinary Diseases, London. With 115 Plates Containing 670 Original Illustrations, of Which 528 Are Colored. St. Louis: C. V. Mosby Co., 1925. Price \$25.00.

Ryall has produced one of the finest monographs that the reviewer has ever examined. The 670 illustrations clearly present all the conditions in which operative cystoscopy may be employed. This book is invaluable to anyone who is interested in cystoscopic work. The author has divided his book into four sections. Section 1 describes the method of anesthesia which he employs. He states: "It may be mentioned here that at All Saints Hospital, during the fifteen years that have elapsed since its foundation by the author, no instrument of any kind has been passed into the male urethra without previously securing anesthesia." He advises the use of cocaine, "the

dilution invariably employed is one of the one-half per cent; and this has been found safe and satisfactory. It should be combined with one-half per cent sodium bicarbonate and one-quarter per cent of chloretone." The method of application is described in detail.

Part II presents the different methods of removing stones from the ureter by cystoscopic technique. The colored illustrations make the various procedures perfectly clear.

Part III deals with vesical calculi and their removal by cystoscopic methods. Foreign bodies in the bladder and vesical cysts are also considered. The author's methods of treating growths in the bladder with diathermy and high frequency are given in detail.

Section IV is devoted to the prostate. The use of diathermy in prostatic diseases is shown in text and colored illustrations. Complications following prostatectomy are also considered. An appendix describes the author's universal cysto-urethroscope.

It is the reviewer's wish that the publishers will be amply repaid for producing this splendid atlas.

METHODS IN SURGERY. By Glover H. Copher, M.D., Instructor in Surgery, Washington University School of Medicine; Clinical Assistant Barnes Hospital; Surgeon to Out-Patients, Washington University Dispensary; Visiting Surgeon St. Louis City Hospital. Octavo of 232 Pages. C. V. Mosby Company, St. Louis, 1925. Cloth, \$3.00.

This book presents the various routine and special procedures employed in the surgical service of two large hospitals. While it was intended primarily as a handbook for the house staff of those hospitals, it is thought that other surgeons and other hospitals may find useful the systematic presentation of a routine procedure used in the study of the surgical cases in these hospitals together with the descriptions of their indications for use of some of the more recent laboratory tests which have been found helpful in improving diagnosis and in lowering the surgical mortality. The next goes into the history taking, physical examination, laboratory examinations, ward and operating room routine, and postoperative care, the various problems confronting the surgeon, nurse or attendant being each considered in concise yet comprehensive and systematic way. A few chapters are devoted to suggestions concerning care of the special cases and a final chapter is devoted to routine and special diets. The book will prove very useful to any and all persons who have to do with the preoperative and postoperative care of the patients.

SYMPTOMS OF VISCERAL DISEASE. By Francis M. Pottenger, A.M., M. D., LL.D., F.A.C.P., Medical Director, Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, California. Third Edition. Eighty-six Illustrations and Ten Color Plates. Cloth, \$6.50. C. V. Mosby Co., St. Louis, 1925.

This book represents a revised third edition with such additions and corrections as deemed necessary by the author to bring it up to date. In reality it is intended as a guide for those who will study the patient as well as the diseases, and it emphasizes the importance of more accurate clinical observation and the interpretation of symptoms or clinical phenomena. Special attention is devoted to the activity of the endocrine glands which have so much to do with the physical acts connected with visceral function and which furnish the bridge between the pathologic changes in tissues and the expression of the disease in altered organic function. In this study of the vegetative nervous system is found the facts that one should understand in order to account for body activities both physiological and pathological, expressed through it. Part one is devoted to a general discussion of the vegetative nervous system anatomically and physiologically considered with special chapters on the relationship of the ionic content and physical state of the cell through activity and nerve stimulation. Part two is devoted to the relationship between the vegetative nervous system and

the symptoms of visceral disease. Part three discusses the innervation of impotent viscera with a clinical study of the more important viscerogenic reflexes. The book is well illustrated, many of the illustrations being in color.

DISEASES OF THE NOSE, THROAT AND EAR. By William Lincoln Ballenger, M.D., revised by Howard Charles Ballenger, M.D. Fifth edition. Illustrated with 551 engravings and 32 plates. Cloth. Price \$10.00 Lea and Febiger, Philadelphia and New York, 1925.

The original Ballenger's "Diseases of the Nose, Throat and Ear" ranked as a standard textbook, and work of reference for the specialist as well as the general practitioner of medicine. With minor revisions it went through four editions and now appears as a fifth edition under the editorship of Howard Charles Ballenger, M.D. The editor announces, and an examination of the text discloses, that practically every page of the textbook has been subjected to a most careful and searching revision in order to bring the book fully up to date. Many new illustrations have been added, and the newer operations as well as the newer therapeutic measures recommended in the treatment of diseases of the nose, throat and ear have been described. More attention has been given to anatomical and pathological discussions, and the editor has given a very rational view of the indications for the various operations. A more conservative attitude toward operations on the nose and mastoid will be noted, and especial reference has been made to the indications for tonsillectomy.

All in all the book retains its place as a thoroughly trustworthy and up-to-date treatise on the subjects embraced in the text. It is well illustrated with 551 engravings and 32 plates, many of which are entirely new.

A criticism that may be made is that there is too much of the personal equation in the entire book without sufficient or perhaps no recognition of theories, practices and procedures that have obtained popularity and possess merit, and yet an author is to be commended for giving a comprehensive description of his own theories and practices when experience has found them entirely satisfactory. In fact, we are rather inclined to place the stamp of approval upon works that bear the imprint of the author's individuality and experience. The publisher's work has been well done.

POTTER'S THERAPEUTICS, MATERIA MEDICA AND PHARMACY. By S. O. Potter, A.M., M.D., M.R.C.P., London; revised by R. J. E. Scott, M.D., B.C.L., M.D., New York. Fourteenth edition. Cloth. Price \$8.50. B. P. Blakiston's Son and Co., Philadelphia, 1926.

The popularity of this work is shown by the fact that it is now in its fourteenth edition. It is a very practical book and is intended to give concise yet trustworthy information regarding both official and nonofficial drugs and preparations. It gives the doses, preparations, incompatibles, and therapeutic uses of the useful drugs. We are pleased to note that it endorses the Handbook of Useful Drugs, and New and Nonofficial Remedies, two valuable books published by the American Medical Association. We also are pleased to note that every practicing physician is urged to refuse to use any nonofficial preparations that have not been approved by the Council on Pharmacy and Chemistry of the American Medical Association. As in the thirteenth edition, the author includes all notable therapeutic advances, including the serum treatment of pneumonia, starvation treatment of diabetes, intraspinal and intravenous therapy, paraffin treatment of burns, and the use of radium and radiotherapy. The author has succeeded in producing a practical work on material medica and therapeutics. It contains numerous tables comprising diagnostic hints, Latin terms and phrases, formulas, and tables of weights and measures with metric equivalents. Prescription writing receives full consideration.

(Continued on Adv. Page xx)



TETANUS ANTITOXIN SQUIBB

*For the prevention
and treatment of
Lock-Jaw*

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BOOK REVIEWS

(Continued from Page 298)

SIXTY YEARS IN MEDICAL HARNESS. By Charles B. Johnson, M.D., Volume One of the Library of Medical History. Cloth, price \$3.00. The Medical Life Press, 12 Mt. Morris Park, West, New York.

To quote the foreword, "Sixty Years in Medical Harness" is a simple narrative of the experiences and observations of an every day country doctor who on the one hand has endeavored to be as frank in naming his mistakes and failures as on the other to note some of his successes and achievements. It is an interesting book, well written, and describes the experiences of an old time country doctor, a type that is rapidly disappearing owing to the progress of the times.

A LABORATORY MANUAL OF PHYSIOLOGICAL CHEMISTRY. By Elbert W. Rockwood, M.D., Ph. D., professor of Chemistry and Toxicology in the University of Iowa, and Paul Reed Rockwood, M.D., Fellow in Medicine, the Mayo Foundation. Fifth edition, revised and enlarged. Illustrated with four colored plates and 43 text engravings. F. A. Davis Company, publishers, 1924. Cloth. Price \$4.00.

This book represents the fifth edition of a textbook that primarily was intended for students. It has been brought up to date by a thorough revision. Various tests that have been superceded by better ones have been dropped. A new chapter dealing with blood analysis has been included, as also the experiments with insulin and the vitamins and feeding experiments with deficient proteins. The book is a safe guide for the study of normal and pathologic metabolism. There are some very practical chapters on examination of saliva, gastric juice, blood, bile and urine.

THE THERAPY OF PUERPERAL FEVER. By Privatdozent Dr. Robert Koehler; American edition prepared by Hugo Ehrenfest, M.D., F.A.C.S. associate in Obstetrics, Washington University School of Medicine. Twenty-seven illustrations. The C. V. Mosby Company, St. Louis, 1925. Cloth, price \$4.00.

This is an American edition of a very important German contribution dealing with the problem of puerperal infection and the various measures used to combat it. The newer methods are fully described, including the introduction of remedies into the blood stream. It discusses nonspecific protein therapy and the use of the newer therapeutic drugs, as based upon actual experience, and the added advantage of European observers in following the cases to autopsies and thus learning the exact pathology of conditions responsible for the patient's death. The author analyzes in a critical way the therapeutic suggestions that have been made of late, and he condemns therapy advocated by the enthusiasts before it has been intelligently tested and its merits proved. The author does not attempt to prove or disprove the value of any remedy by means of statistics. He merely sets forth comprehensively the various therapeutic measures and remedies, and states precisely the results of his wide experience with each, elucidating important facts by citation of the clinical histories of certain particularly characteristic cases. The fact that in spite of considerable progress the puerperal mortality rate still is rather high is quite sufficient to justify the author in the presentation of the subject by one of his wide experience, and we think the book will prove interesting and valuable to every physician who is doing obstetrical work and perhaps be called upon to attempt to combat puerperal infection.

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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY under Direction of the Council

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ORIGINAL ARTICLES

COLITIS*

JOSEPH W. LARIMORE, M.D.
ST. LOUIS

Colitis as a general term includes all the diseases of the colon resulting from an irritation factor and excludes its anomalies, functional disturbances, and malignancy. Colitis may be classified as: (1) Catarrhal colitis, a non-inflammatory disturbance, characterized by an increase of mucous production; (2) colitis, of determinable bacterial or parasitic etiology, including bacillary dysentery, endamebiasis, tuberculosis, sprue, and syphilis; and (3) chronic (idiopathic) ulcerative colitis, which remains of undetermined etiology. Differential diagnosis is made upon the general history and clinical associations, with pathognomonic findings from stool studies,—gross, microscopical, and cultural; from proctosigmoidoscopic examinations, or from barium x-ray observations. Any one of these examinations may disclose con-



Fig. No. 1—Barium enema of the colon in chronic idiopathic diarrhea showing irregular haustrations and irritation contour. The cecum could not be entirely filled because of intolerance of the bowel to the enema pressure. This colon returned to normal haustrations and contours with use of a vitamin rich general diet.

clusive diagnostic data. All are necessary to determine the character, extent and degree of the disease. Case abstracts will illustrate the differ-

tial diagnosis and treatment of several types of colitis.

Mucomembranous colitis is illustrated in the case of a woman, thirty-eight years of age, who had had for twenty years a severe constipation interrupted by short periods of mucous diarrhea



Fig. No. 2—Barium enema of the colon in generalized colonic endamebiasis showing atypical haustrations and minute irregularities of contour.

and occasion of colica-mucosa when membranous casts were passed. Her diet had been restricted, both upon medical advice and because of personal experimentation, for the relief of dyspeptic symptoms,—belching, bloating, and general abdominal discomfort. Her diet was calorically adequate of concentrated foods and she had maintained a state of overweight. There was a gastric achlorhydria. The stools examined showed small amounts of mucus. A full roughage diet, liberal hydrochloric acid by mouth, and a mild general sedative were used. Bowel function soon became normal and has persisted without further attacks of colica-mucosa and with the disappearance of the dyspeptic symptoms. Such patients are often of the neurotic, introspective, apprehensive type and their dietary and dyspeptic troubles revolve in a vicious circle. Whether mucous colitis is a neurosis or a result of general and local malnutrition is debatable in the light of the newer knowledge of nutrition.

Chronic idiopathic diarrhea occurred in a man of thirty-eight years. There had been a tendency

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to diarrhea all his life. He had had an intractable diarrhea for six years. In the last six months the stools had shown increased amounts of mucus. A full roughage diet, liberal hydro-aminated showed only a small amount of mucus. Gastric analysis, on three occasions, showed an achlorhydria. Proctoscopy was not notable. Cultures for monilia were negative. Gastro-intestinal x-ray (Fig. 1) examination showed a moderate hypermotility but with disordered haustration and irritation contour of the colon and without



Fig. No. 3—The same colon as in Fig. No. 2 showing restitution of the normal haustrations and contour, 12 days after beginning emetine treatment.

narrowing of the lumen. Varied measures of medicinal treatment and restricted diet were without success during two years of observation. A liberal general diet including especially the vitamin-carrying fresh vegetables was followed by prompt relief, which has persisted for two years and the colon has returned to a normal x-ray anatomy.

Amebic dysentery is demonstrated by the case of a man aged forty-six years who, for two months, had had a progressive diarrhea showing from eight to fifteen stools a day, usually fluid or mushy and showing traces of blood and scant visible mucus. He had lost twenty pounds. Proctoscopy showed multiple characteristic small ulcers, coated with grayish mucus in which a myriad of ameba-hystolytica could be microscopically demonstrated. A barium enema showed the entire colon involved. (Fig. 2.) This accounts, in this case, for the fluid and mushy character of all stools. When only the distal colon is involved it is usual to have fairly normal, formed stools coated with blood and mucus, and between defecations to have dejections of bloody mucus. Emetine (one grain daily for six days) gave prompt relief, and a subsequent barium enema (Fig. 3) showed a normal colon. There was one relapse with immediate response to emetine. The patient has been clinically well for two years.

Another case, responsive to emetine, repeatedly

relapsed within four weeks after each course. Salvarsan, intravenously, gave the same result. Stovarsol was then used by oral administration and continued over many months with permanent cure. This drug is relatively non-toxic, and, continued over long periods, kills all motile forms as the cysts open. It thus gradually and completely eradicates this infection.

Another case responsive to emetine had repeated relapses due to residual infection on a partially obstructing callous ulcer at the hepatic flexure. This ulcer was resected and from its surface ameba-hystolytica were demonstrated. Oral medication is necessary to reach this luminal surface infection.

Tuberculous colitis occurred in a young girl of twenty-two years who had shown active pulmonary tuberculosis for the previous seven months. For two months she had had much belching, sour stomach, and frequent nausea, with abdominal cramps appearing in the interdigestive periods. There was slight tenderness to palpation in the right lower abdominal quadrant, but without palpable mass. There was no diarrhea. X-ray examination showed delayed gastric emptying, hypermotility of the right colon, and irritability of the cecum and ascending colon (Fig. 4). Palpation under the fluoroscope produced peristalsis in these portions and they immediately emptied into the trans-



Fig. No. 4—Barium enema in acute, ulcerative, secondary tuberculous of the cecum and ascending colon, confirmed by operation. The cecum was tolerant to the barium of the fed test, but peristalsis and spasm with emptying could be elicited by vigorous palpation.

verse colon. The resected cecum, and appendix and ascending colon showed an acute, early, tuberculous ulceration. Occult blood may appear in the stools and is corroborative; tubercle bacilli from the feces are not determining, and diarrhea as an accompaniment of pulmonary tuberculosis is a presumptive symptom of colon involvement, but it may not occur early.

Hemorrhagic ulcerative colitis (Fig. 5), occurred in a girl of nineteen years. The chief complaint was diarrhea with frequent loose defecations containing blood. Bleeding was so constant



Fig. No. 5—Barium enema of the colon in hemorrhagic, ulcerative colitis demonstrating total involvement. This is a type of idiopathic ulcerative colitis.

in this case that the resulting anemia required blood transfusions. The physical examination was not notable. The blood showed a secondary anemia. The urine was normal. The Wassermann was negative. Blood and stool cultures were negative for pathogenic bacteria. Emetine and mercurochrome treatment gave no relief. Heliotherapy did not improve the local disease. Blood transfusions on three different occasions gave marked improvement. Proctoscopic examination originally showed only an hemorrhagic ulcerative proctosigmoiditis. During three years the status varied but was never fully relieved. There developed a miliary polyposis. Ileostomy was done by Dr. Evarts A. Graham. The colon subsequently (Fig. 6) showed marked contraction in its lumen with continuation of bloody purulent discharge in spite of irrigation treatment. The patient's condition and ileostomy function are excellent.

Primary polyposis of the colon occurred in a young girl of sixteen years. She gave a history of abdominal discomfort with occasional attacks



Fig. No. 6—The same colon as in Fig. No. 5, showing the continued contractural narrowing and shortening at six months after ileostomy.

of pain during the previous six months. Her chief complaint was vomiting, which accounted for a loss of weight from 165 pounds to ninety-five pounds. Because of its character, and the manner of its control, this vomiting was considered a neurosis and this temperament of the patient was a serious handicap to her medical care. The diagnosis of her colonic disease was made by the x-ray findings (Fig. 7), and was supported by a constant occult blood in the stools, and by a persistent secondary anemia. With control of the nervous vomiting she gained twenty pounds in weight. The high incidence of malignant change in this disease and the inadequacy of other treatment indicated surgical resection. Colectomy was then done by Dr. Evarts A. Graham. An abscess developed at the site of the ileosigmoidostomy and a fistula opened. The post-operative course was unsatisfactory and after six months the patient died.



Fig. No. 7—Barium enema in primary polyposis of the colon showing involvement of the ascending and transverse colons. Stereoscopic films added to the clearness of this roentgen demonstration. Operative resection confirmed the diagnosis.

Chronic ulcerative colitis occurred in a woman, aged forty years. She had had for the previous six months from eight to nine stools daily. Following in influenza infection in 1917, her bowel function had changed from an obstinate constipation to free, copious, daily actions without diarrhea. For five months the stools had shown microscopic pus and blood. There was never abdominal pain. There was a loss of weight from 162 to 128 pounds. She had been operated for hemorrhoids and fistula to correct her diarrhea but without that result. There was a slight, simple anemia without other notable clinical findings. The x-ray (Fig. 8), showed a marked tubular contracting and shortening of the proximal colon to the splenic flexure. Proctoscopic examination was negative. The involved colon was resected by Dr. Evarts A. Graham. The post-operative condition of the patient is excellent. She has two or three soft defecations daily.

Another case of chronic ulcerative colitis in a young woman showed (Fig. 9) involvement from

the hepatic flexure to the anus. Proctosigmoidoscopy gave a characteristic picture of a generally contracted rectum, the mucosa was edematous, friable, and grayish with many small, shallow ulcers. She was treated medically by irrigations, emetine, and transfusions, without result. The diet was then changed to include a greater variety of foods emphasizing the fresh vegetables, and with the addition of cod liver oil. The immediate improvement has continued and barium enema (Fig. 10) have shown the subsequent gradual return toward normal anatomy of the colon.

A similar case occurred in a young man with the entire colon involved. Proctoscopy is characteristic. All methods of treatment during two years had failed. When placed upon a similar diet there followed an improvement in general condition, a gain of weight, and a diminution of the number of stools. There is some x-ray evidence of restoration of the colon and the proctoscopic picture is markedly improved.



Fig. No. 8—Barium enema in chronic (idiopathic) ulcerative colitis demonstrating involvement of the proximal colon by the characteristic tubular contraction and shortening. Resection gave operative confirmation of the diagnosis.

Diverticulitis was seen in a woman of forty-eight years, weighing 138 pounds, who complained of pain in the lower left abdomen, with a localized tender point in the lower left abdomen coinciding with a palpable "lump." Similar attacks were frequent during the previous seven years. The current attack had persisted for three weeks with varying severity with slight fever. There was a small palpable mass in the outer left lower quadrant. The leukocyte count was 16,800. Enemas of magnesium sulphate and opium, adequate to control the pain, helped in terminating this attack and have subsequently served to abort threatened attacks. The x-ray examination (Fig. 11) showed diverticulosis of the ascending, transverse, descending and sigmoid colons, showing several hundred small diverticula. Hypertonicity and spasm of the rectosigmoid accounts for that segment as the usual site for diverticulitis and its complications. Intermittent oral use of Bis-



Fig. No. 9—Barium enema in chronic ulcerative colitis showing involvement of the ascending and distal segments of the bowel.

muth salts and absolute avoidance of laxatives reduces the frequency of attacks.

The medicinal treatment of colitis of determinable etiology is very direct and efficacious,—serum therapy in dysentery; emetine, bismuth-emetine-iodid and stovarsol in amebic dysentery; salvarsan in flagelette diarrhea, and heliotherapy in tuberculous colitis. In idiopathic colitis, however, the various suggestions for treatment reveal their weakness by their multiplicity. Autogenous vaccines, iodine, bismuth, calcium chlorid, parathyroid, extract, irrigations by various bactericidal and bacteristatic dyes as argyrol, protargol, mercurochrome, gentian violet, silver nitrate, potassium permanganate, iodine are all used and find commendation. Oxygen inflation to change the anaerobic conditions of the colon has given little help. The surgical procedures used are: appendicostomy, cecostomy for facility of irrigation; ileostomy, ileosigmoidostomy for shortcircuiting the diseased bowel, and finally colectomy. All these measures have been found useful.



Fig. No. 10—The same colon as in Fig. No. 9 after five months of consistent vitamin rich diet as the only measure of treatment. Proctoscopy showed normal conditions after two months of treatment.

The large measure of help secured in these cases of idiopathic colitis by the emphasis of the nutritional factors has demonstrated their primary importance. Conceptions of the character and action of these dietetic factors are changing. Colitis and other conditions having associated diarrhea or other evidences of irritation factors in the colon, have been treated by restricted, soft or puree diets without roughage and usually low in cellulose content. Various cultured milks, Bulgarian and acidophilous have been used. It appears that such diets, while reducing the number



Fig. No. 11—Residual barium in diverticula of the colon after laxative in preparation for a barium enema.

of stools, are too restricted even when supplying adequate calories. Chronic colitis of all types and degrees does better when a more general diet is allowed. The gastric secretion and adequacy of gastric digestion is more determining upon the limitation of diet for colonic disease than is the colon itself. With low or absent hydrochloric acid coarses cellulose foods must be limited. Improvement in cases of chronic ulcerative colitis has appeared definitely associated to the adequacy of the diet in vitamin B. In some cases it seems more efficacious to allow vitamin rich roughage even where the initial discomforts need control by peristaltic sedatives.

MALIGNANT METASTASIS WITHIN THE THORAX*

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I have been interested in this subject because it plays such an important part in the prognosis of cases of malignancy, which are referred for radiation treatment, either by radium or by roentgen rays. On account of the insidiousness of early intrathoracic metastasis, it has proven necessary to take periodic chest films in many of these cases, especially cancer of the breast and sarcoma of bone. Incidentally, bony metastasis is likewise

insidious, especially in certain types of malignancy, such as cancer of prostate, of thyroid, and of breast. Bloodgood says that in cases of breast cancer, he is as watchful of the lower spine and pelvis as he is of the chest, and requires periodic radiograms. We know also that this same region is prone to harbor metastasis of prostatic cancer.

If it is important to make sure regarding metastasis for purposes of radiation therapy, it is equally important for purposes of surgical interference. Operation is futile if neoplastic transfers are present in the chest, and before deciding on a mastectomy for cancer, or an amputation for sarcoma, it is imperative that one know whether deposits are present in the thoracic organs. We must admit, of course, that it is equally imperative to know about deposits in the liver, the peritoneum, the deep lymphatics, and other tissues, but it happens that in such cases there is as yet no means at our command for ascertaining definitely their presence. However, we may at any time discover better methods of technique or totally new means of diagnosis, which will make these cases easy to detect, for hardly a generation ago we did not anticipate that malignant metastases to lungs and bones would become so easy of detection; fortunately it is in pulmonary and osseous structures that metastasis is particularly frequent and that roentgenography is so helpful.

The term "metastasis" may be defined as the transfer of disease to a point remote from the original lesion by embolus, either in blood or lymph current. It is to be distinguished from extension by invasion or permeation and from multiple coincident lesions. As examples of the latter we recognize multiple myoma, fibroma, moles, cutaneous epithelioma, nasal and intestinal polyps, chondroma and many others. There are a few cases on record where so-called benign tumors have shown true metastases, such as chondroma, thyroid adenoma and myoma. Of all the sites for metastasis, including all types of malignancy, probably the intrathoracic region is the most frequent. The lungs, pleura and mediastinum are the terminals, or in close relation with the terminals, of the venous and lymphatic systems. Of the various clinical tumors, probably breast cancer furnishes the largest number of intrathoracic deposits that we encounter. Very few cases of mammary cancer fail to involve the axillary lymph nodes inside of a year after their inception, and if these nodes are infected, we do not know how much farther the disease has spread. It was estimated by Gross that one in every seven cases will show remote metastases, *without causing any enlargement* of axillary nodes. Other sites of origin which less often contribute cancerous metastases to the chest are stomach, intestine, thyroid, prostate, bladder, testis and kidney, while the oral cavity, ovary, uterus, rectum and skin rarely contribute. In addition to the point of origin, we must always consider the histogenic

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type of carcinoma in forecasting its spread, either locally or remotely, and in estimating its behavior after transference. For example, carcinoma of the adenoma and mucoid types are slow to embolize, while the medullary or encephaloid type is rapid.

Sarcoma is of infrequent occurrence, compared with carcinoma, yet its tendency to metastasis is relatively universal and early, particularly in the soft and cellular types; and the thoracic organs are the most common destination of all sarcoma emboli.

Hypernephroma and teratoma are varieties of malignant neoplasm that are only occasionally seen, but they are quite prone to send deposits to the lung.

It is true that cancer metastasizes most often by the lymphatics, and sarcoma by the blood vessels; however, sarcoma occasionally progresses along lymph channels and quite often cancer travels by the vascular route. The progress of both is usually a forward one, with the stream, but there seems to be definite proof that retrograde progress can occur.

Metastasis within the thorax probably most often affects the parenchyma of the lungs and less often the pleura and mediastinum, while the heart and pericardium are rarely involved. The roentgenologist will study these metastases with reference to their distribution, shape and size; dealing as he does only with shadows he cannot compete with the pathologist, who in addition can study color, consistency, histological and biological characteristics. However, even the pathologist is sometimes puzzled to differentiate various tumor types.

In general, metastases begin at the bases of the lungs, appearing at first as rounded, discreet shadows. I have had the opportunity of taking serial films of a case where the first evidence was a spot only a centimeter in diameter, later increasing and multiplying until there were large confluent masses extending from bases to apices, with subsequent hydrothorax. It is difficult to differentiate between various types of lung metastases; as a matter of fact, we are usually relieved of this difficulty by a knowledge of the original growth. In a few cases, however, we accidentally encounter lung deposits where no focus of malignancy has been suspected; in the radiographs of bones this occurs oftener than in those of the chest. The points of origin that are most likely to be concealed are kidney, stomach, breast, prostate and thyroid. Some metastases are easy of recognition, such as those of teratoma, in which certain characteristic tissues are unmistakable, or of lymphosarcoma, where the massive size and sharply defined nodular outline is suggestive.

Cancer deposits tend to be multiple and rarely occur as single, large nodules; they are usually much slower growing than sarcoma. The deposits

from thyroid cancer and hypernephroma are prone to be of variable density and of irregular shape and distribution.

Sarcoma metastasis may be of the multiple type, or not infrequently it is single or confluent, very massive and grows rapidly.

From a histological standpoint, we know that metastases may preserve the structure of their parent growths and sometimes the function, as in cases of thyroid metastases which contain colloid and iodine; or they may depart from the parent type and differ in histology and mode of growth.

Deposits in the mediastinum are of course quite distinct in their appearance from those in the lungs; they are more often carcinoma than sarcoma, with the exception of lymphosarcoma. Pleural involvement may either precede or follow involvement of the lung parenchyma. The appearance of fluid is usually a late accompaniment, and it is apt to be bloody. Rarely a malignant deposit may cause a localized accumulation of fluid, resembling abscess or encapsulated empyema.

The insidiousness of intrathoracic metastases is the reason for their being so often overlooked clinically. They can attain a considerable number and size in the lungs and pleura without causing any symptoms. The pathognomonic picture of cough, pain, dyspnea, raspberry jelly expectoration and cachexia is a late manifestation and can no longer be awaited in the present stage of diagnostic aids. Nor can we wait for the physical signs that are found upon inspection, palpation, percussion and auscultation.

In the differential diagnosis of malignant metastases within the thorax by roentgen examination, there is a long list of conditions to consider. Some of these that may give rise to error are tuberculosis in its various phases,—both human and bovine, adult and puerile,—lung abscess, bronchiectasis, primary lung or mediastinal tumors, actinomycosis, blastomycosis, yeast infection, hydatid disease, silicosis, infarct, gangrene, unresolved pneumonia, cysts, fibroma, aneurysm, Hodgkins disease. A detailed discussion of the differentiation of the foregoing list is a whole subject in itself, and distinctly a technical one.

The therapy of thoracic metastases is one that is now left almost exclusively to the roentgenologist,—who unfortunately can be of service only occasionally. As a rule the effectiveness of radiation cannot be predicted, except to say that at best it will be only palliative. On general principles we are inclined to prophesy that a neoplastic deposit of embryonic or undifferentiated type will respond best to radiation, but is likely to recur quickly. Lymphosarcoma is agreeably amenable and the results are known to be temporarily spectacular—but probably never permanently curative. We have all occasionally seen lung metastases, either cancerous, or sarcomatous,

or teratoid, vanish quickly under roentgen radiation; or if the deposits have not seemed to diminish markedly, the patient has had a welcome respite from cough, pain and dyspnea, with recession of fluid in the pleura. Of course it is not wise to radiate patients who are cachectic or anemic and the treatment must always be held short of that point that will add roentgen fibrosis to an already serious pathology. If one series of proper exposures through several parts, with sittings spaced according to the circumstances of the case, does not produce improvement symptomatically or anatomically, it is usually fruitless to attempt repetition. A few remarkable cases of arrest are found in the literature, so that one always hopes he may have a similar one. Of course teratoid deposits are well known to show some so-called cures.

In conclusion it is my principal object to emphasize the insidiousness of "silent metastasis" in the lung and the importance of discovering it in planning treatment and giving prognosis for cases of malignancy elsewhere in the body.

THE TREATMENT OF SYPHILIS

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Due to the rapid advancement in the development of new anti-syphilitic drugs, there seems to be quite a bit of confusion in the handling of syphilitic cases. We frequently encounter patients who have had insufficient treatment but who have been dismissed as cured, with disastrous results to themselves and family. Others are seen who are suffering from the effects of over-treatment, with the accompanying severe skin reactions, permanent impairment of kidneys, and poor general health. It seems appropriate to call attention to some observations which we have made which have assisted us in handling cases of syphilis in clinic and private practice.

With the invasion of syphilis the patient must develop some degree of natural immunity or be destroyed by the invading spirochetes. This invasion is comparable to a battle where, for example, the spirochetes are the attacking army trying to conquer the fort, which is represented by the induration surrounding the point of attack. Early in the development of the chancre, some of the spirochetes may be expected to invade the lymph and blood streams and may be overcome by the natural resisting powers of the host. Especially is this true when the port of entry is located on the erectile tissue where because of the character of the anatomical structures nature is unable to provide a temporary block to the invasion. Experience has taught us that in due time the invaders are always victors. True to form the index of the fight is shown by the Wassermann becoming positive by the seventh week after ex-

posure, and the spectacular skin or secondary manifestations appearing the ninth week after exposure. It is at the secondary stage that the individual's immunity reaches its highest peak and gradually causes a recession of the symptoms. It is possible for a patient to carry this natural immunity for life, with no outward manifestations of syphilis and die from some intercurrent disease. However, this immunity is easily disturbed, or the disease activated by minor ailments, as colds, by habits such as alcoholism, by injury as in ununited fractures, or in fact anything which produces irritation. The patient may enjoy an apparent increased immunity following a severe febrile condition such as malaria or typhoid.

When a physician undertakes to treat an early case of syphilis his problem is to kill the maximum number of spirochetes without injury to the host. If the case is a latent one the first problem is to control the then existing manifestations, after which it resolves itself as in the early case. The end results will be in proportion to the pathology present when the treatment first is instituted. If the disease has caused destruction of tissue which has been replaced by fibrous or scar tissue before treatment has been started, it is only logical to expect some permanent impairment of the parts involved.

In recent years the armamentarium of the syphilologist has been strengthened greatly by new advances in therapy. When the future of the syphilitic depended upon the random oral administration of iodides and mercury, exact results, in the light of our present knowledge, hardly could be expected. The advent of the various forms of arsenicals was a most valuable aid, particularly in the treatment of early syphilis. Intramuscular injections of mercury, given in such a way that definite dosage is regulated and complete absorption is accomplished, is a further advance. More recently the use of the various bismuth compounds holds much promise. One can view it in the light that the spirochetes have never been subjected to a bismuth environment and have feeble resistive powers to this new agent. Much good work is being done on syphilis of the nervous system with the use of the intra-spinal therapy, tryparsamide and the fever treatment. The last word on the treatment of syphilis has not been written. Each decade shows marked advancement and offers new hope. What now is considered good treatment may be considered poor treatment twenty years hence, but we must make the most of our present knowledge.

For practical purposes in handling cases some general scheme of treatment is necessary. But no matter what the plan of treatment may be it must be altered at times to fit the exigencies of the case. Better co-operation on the part of the patient is manifested if some definite goal is offered. As a result of our personal experience in practice and observation in clinics we have evolved

a general plan of treatment which is successful in proportion to the co-operation obtained from the patient.

The treatment of syphilis may be divided into three stages, prophylactic, abortive and curative. Metchnikoff was the first to demonstrate a practical prophylactic treatment for lues. He advocated the use of the thirty-three per cent calomel in lanolin, and it has proved its value in the great percentage of cases if used within eight hours. Soap suds too, has a marked spirocheticidal action and is of great value as a practical prophylactic. A soap suds bath followed by a massage of thirty-three per cent calomel in lanolin into the tissues, represents our best knowledge to date. Of recent years neo-arsphenamine has been used intravenously as a prophylactic measure by some men. Lack of accuracy would render this procedure questionable. It would seem to us that stovarsol, which is given by mouth, offers a more rational plan of procedure if the use of the arsenicals is thought advisable.

If the treatment of a case is instituted when the dark field is positive and the Wassermann is yet negative, or more particularly before the nearest glands show evidence of invasion, treatment will prevent the disease from becoming systemic. This is called the abortive treatment. One year of intensive treatment should effect a cure in a case of this type. Research has established that the total amount of four grams of neo-arsphenamine may be administered safely to a normal adult of average weight without fear of an injurious deposit of arsenic in the tissues, provided proper time is allowed between doses for elimination. The first thought of the physician should be to determine the tolerance of the patient to the drug. When this has been determined the course, consisting of a total of four grams of neo-arsphenamine should be pushed as rapidly as safety and convenience will admit. It is our rule in such a case to begin with a dosage of 0.45 grams in 10 c.c. of freshly distilled water administered intravenously; increase the dose to 0.6 grams in five days, and proceed with such dosage at intervals of five to seven days until the four grams have been administered to constitute the course. This is followed immediately by a nine weeks' course of intramuscular injections of mercury or bismuth, the injections being given at seven-day intervals. Iodides are then given for one week to be followed by another injection of 0.6 grams neo-arsphenamine. A rest period of one month follows. In determining the amount of mercury to be employed in the intramuscular course, the rule of the Vienna school, of nine grains for a normal adult of average weight, increasing or decreasing one and one-half grains for each twenty pounds of body weight, has been followed.

The succeeding course consists of four weekly injections of neo-arsphenamine followed by nine intramuscular weekly injections of bismuth or

mercury. One week of iodides and another of 0.6 grams of neo-arsphenamine, completes the course. The third course is similar to the second, and should complete the case, providing blood and spinal Wassermann remain negative for a period of two years following the completion of the treatment.

Our experience has taught us that if we give our patients periods of rest between courses we prevent the organisms from becoming drug-fast. Then, too, mercury administered to tolerance means a load on the kidneys, and to disregard this means a violation of a natural law. Research work has demonstrated that the amount of arsenical preparations used in the course represents about the average that the individual will tolerate well. Any man with wide experience in lues appreciates the patient's reaction to overloading with anti-syphilitic drugs.

When a patient presents himself in the secondary stage of syphilis we are dealing with a much more serious condition. It is then that the condition has become a tissue rather than a local condition. More caution is required, particularly in giving the early doses of neo-arsphenamine. If a large dose of neo-arsphenamine is given there is a massive killing of spirochetes at one time, with resultant liberation of endotoxins, with attending bad effect upon the patient and an exaggeration of symptoms. This is known as Jarish-Herxheimer reaction, and may produce destructive changes, especially by impinging nerve trunks that pass through bony channels.

Treatment in a case which is seen first in secondaries, should be carried on over a period of at least three years. The first year of treatment should be the most intensive, and should be conducted in a large measure as outlined in the abortive treatment of syphilis. In the second and third year the rest period should be extended from two to four months between courses, depending upon the condition of the patient. The courses of treatment in the second and third years should consist of an injection of neo-arsphenamine followed by a nine weeks' course of bismuth or mercury, one week of iodides, and another neo-arsphenamine. The patient is dismissed as cured after that time if he is free of symptoms, his blood Wassermann negative, and his spinal fluid normal.

In the tertiary type of case we are dealing with another proposition. The initial invasion of syphilis usually dates back a number of years, and the condition has become dormant, either as a result of a small amount of treatment given at the time of infection, or as a result of the natural immunity of the patient. Because these tertiary symptoms usually manifest themselves in middle life or later, consideration should be taken of the potential pathology; for instance, if the patient be fifty years of age it should be remembered that he has the circulatory and renal systems of a man

of that age and the doses of medicine given should be in proportion to his general physique. The general plan of treatment should be that of one seen in the secondary stage, with dosage proportionate to the pathology present. It is here in the tertiary stage of syphilis that the use of iodides particularly is indicated in controlling the manifestations. Iodides usually are given by mouth during the same weeks neo-arsphenamine is administered. We have found it good practice in tertiary skin manifestations to use some form of mercury locally. There are those who advocate arsenicals and mercury or bismuth together. To this procedure we offer no objection providing perspective is assured and caution exercised to the end that the patient is not injured.

Congenital syphilis is to be treated as acquired syphilis. It is, however, comparable to latent acquired syphilis and offers the same complex problem. The dosage, of course, is commensurate with the body weight of the individual, and too, the youth in whom we most frequently encounter congenital syphilis may be expected, because of youth, to be free of other pathological processes frequently encountered in older individuals, which in no way are connected with syphilis but which may seriously complicate the therapy. Heretofore our best results have been obtained in infants by the administration of arsenicals in concentrated solutions intramuscularly, but more recently we have been administering neo-arsphenamine orally, dissolved in simple syrup. In older children the arsenicals are given by the intravenous route, and the mercury by intramuscular injection.

Occasionally one sees malignant syphilis, where it seems as though the patient were going to be destroyed by the infection. Some observers believe that this is due to an extremely virulent strain of spirochetes. Others believe that this is due to the lowered resisting powers of the patient. We are inclined to the latter view. That essential something in the body required to properly utilize the arsenicals seems to be absent, and often neo-arsphenamine of itself is not sufficient treatment. By far the most important thing in cases of this type is the general supportive treatment. Rest, sunshine and tonics are as important as a specific drug. The specific drug had best be given in small doses at frequent intervals. It would be almost courting fatality to proceed with anything but the greatest caution in treating such a patient.

A type of case encountered which will tax the ingenuity of the physician is the Wassermann-fast case. By this is meant the persistence of a positive Wassermann in a case which has apparent freedom of outward manifestations of syphilis. One can speculate upon the thought that the spirochetes' ancestors, recent and remote, have lived in an environment associated with mercury and arsenic and must needs have developed some

resistance in order to survive. In cases of this character, careful search should be instituted for factors which would activate lues, which may be menstruation in a diseased pelvis.

Various form of therapy may be resorted to in handling the Wassermann-fast case. Sometimes one may use silver arsphenamine instead of neo-arsphenamine. Prolonged use of the iodides and bismuth are beneficial, but there is a small residue of cases that retain a positive Wassermann in spite of the varied forms of attack upon the spirochetes. Overzealous treatment may result in a negative Wassermann, but also may permanently damage the vital organs of the patient. We have found in recent months that the injection of milk intramuscularly has been helpful in bringing about a negative Wassermann in Wassermann-fast cases.

It is true that whereas all physicians encounter syphilis, few study the disease intensively. It is a common observation that cases which they are called upon to treat have a way of not fitting into the text-book picture. For instance, a case of syphilis is seen because of an eye condition, or cardiac, or bone involvements. For that reason when one discusses syphilis he is led into all the fields of medicine by the ramifications of the disease. In treating a case of luetic myocarditis, hepatitis, or nephritis, consideration must be taken of the pathology present. For instance, it is decidedly preferable to have functioning syphilitic tissue rather than a ruptured aneurysm.

Active lesions so frequently are seen about the mouth in both early and latent stages of syphilis because of the amount of irritation to which the mouth is subjected. We frequently have seen nasopharyngeal infections, jagged teeth, and habits such as smoking and chewing, light up a latent syphilis into active lesions, or interfere with the healing processes when the case is under active treatment. Hardly any one with an extensive experience has not seen a destructive process follow surgery, especially nose and throat operations, in a patient in whom syphilis had not been suspected. Of prime importance then is to remove the source of irritation in addition to giving the routine therapy, or to be assured of the absence of syphilis before inflicting such irritation as entailed by surgical procedure. The dentist becomes a valuable aid in clearing up irritations, and enables the patient to better tolerate his mercury or bismuth. A similar situation also is encountered in the regions of the genitals and anus because of the moist condition so often found around these parts. This is true particularly in marked cases of leukorrhea. We have learned to look for the lesions of syphilis in late secondary and tertiary stages on any part of the body that is subjected to irritation.

Syphilis of the nervous system presents a baffling and intricate problem from the standpoint of treatment. Each new advance in therapy has

been heralded with enthusiasm at first but later found to give benefit only to a limited number of cases. According to numerous investigators, the choroid plexes, which is the greatest source of spinal fluid, is thought to act as a barrier to certain substances like neo-arsphenamine and prevent their free and complete passage into the spinal canal. To compensate for this, intra-spinal therapy has been evolved. The Swift-Ellis method is the pioneer method and has many modifications, such as the McCaskey modification, the Ravaut method, and the Olgilvie technique. The Olgilvie modification of the Swift-Ellis method is the one most commonly employed at the present time, and consists in the addition of a known amount of neo-arsphenamine to serum prepared according to the Swift-Ellis method. Addition of a small quantity of bichloride of mercury to serum was advocated by some for intra-spinal therapy. This latter method enjoyed a limited and short-lived popularity. Spinal drainage is another form of intra-spinal therapy that has been employed. It seems logical to presume that reduction of spinal pressure, brought about by drainage, would result in a greater quantity of mercury or arsenic getting in direct contact with nerve tissue. The method as usually employed consists in the administration of the usual size dose of neo-arsphenamine and then withdrawal of twenty to forty c.c. of spinal fluid. Severe headache is a frequent complication. The results of this method on the whole, as far as clinical improvement is concerned, do not seem to be as satisfactory as those obtained through the Swift-Ellis Olgilvie technique. The test of time has not shown intra-spinal therapy to be of great value in central nervous syphilis where the parenchymatous tissue has been involved, and more recently other forms of treatment have been brought to the front. Tryparsamide has been used long enough now in syphilis of the nervous system to give us some general idea of its virtue. It is particularly useful in those cases with disturbed personality complex. Its usefulness probably lies in its large arsenical content, with resultant tonic effect rather than its spirocheticidal action. It is a crystalline product, and this permits of greater purification and larger doses. Tryparsamide may precipitate visual disturbances that are alarming. We never administer it unless we have had a thorough eye examination by a qualified oculist.

At the present time the fever treatment is receiving the most attention in that form of syphilis which we call "paresis." Since the first report of Wagner von Jauregg in 1919, on the malaria treatment, encouraging results have been reported by European and American investigators. The most marked results have been clinical rather than serological. Hospitalization is necessary when carrying on this form of treatment because of the febrile nature. More complete remissions have been obtained in early cases rather than late ones.

It should be said that reports have been made of inability to demonstrate spirochetes in some paretics which have come to autopsy following the malarial treatment. While it is too early to judge now if these so-called remissions will be permanent, at the present time the malaria treatment offers us the most promise.

No discussion of syphilis is complete without some mention of the special care of the patient. We have found it a valuable aid in averting complications to make frequent urinalysis when the patient is under active treatment, to make careful observation of the general health and weight, to be on the lookout for any signs of jaundice, to inspect the skin carefully for signs of exfoliating dermatitis, to be careful about the condition of the teeth, particularly when the patient is under bismuth or mercury. The most common symptoms complained of by patients receiving medication to tolerance has been lassitude, or as the patient puts it "loss of pep." This always should be a signal for careful investigation on the part of the physician.

The prognosis in a case of syphilis is quite a variable thing. If the patient is seen in the early or primary stage, and thorough and systemic treatment is carried out, a cure can be expected. The increasing number of cases of reinfection with syphilis bears out this statement. In the treatment of syphilis at the primary stage we are attacking the disease before it has had time to produce pathology which may interfere seriously with treatment in later years, therefore treatment can be quite intensive. The prognosis is also quite favorable if treatment is instituted in the secondary stage. Latent cases show marked improvement but are apt to carry some of the damage throughout life, or harbor spirochetes which may be activated by many infections and injuries. Improvement is most noticeable in those latent cases where damage has been more interstitial than parenchymatous. Modern investigators repeatedly are staining the spirochetes in the tissues of supposedly cured cases. This almost makes us despair of complete eradication of the infection if treatment is delayed until the disease has become latent.

The future of the syphilitic is based upon the intelligent handling of his case in the first year of infection. For that reason it is of prime importance to obtain his co-operation and let him have an understanding of what you are trying to accomplish. If he appreciates the condition and is vitally interested, splendid results may be obtained. By all means treatment should be systematic and regular, and in proportion to the physique and ability of the patient to handle it. Of course, no plan of treatment can fit all cases, but some definite general scheme is necessary for the average case. A word of caution demands that we should not be so interested in a battle of killing spirochetes that the patient is permanently

damaged. We feel that if the average early case is treated thoroughly there will be a marked diminution in the number of disastrous tertiary involvements.

OPERATIVE TREATMENT OF PARALYTIC FEET

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Poliomyelitis has been the greatest cause of paralytic feet in children; on the other hand poor and inefficient treatment has been the chief cause of the deformities in these paralytic cases. This can mean only one of two things, either the physician did not give the necessary supervision and after-treatment or he did not know what this treatment should be.

Poliomyelitis can be divided roughly into three stages. The first or acute is purely medical and consists in the relief of the acute symptoms and perhaps in the use of some form of serum. The second stage is purely a mechanical one and consists in the muscle training to restore the nerve function and in the use of splints or braces to prevent deformities. The third stage is also a mechanical one in which some means are employed to utilize to the best advantage to the patient the paralyzed muscles and the unprotected joints. This may be either through braces or through surgical procedures.

Some advance has been made in the treatment during the first stage through a better understanding of the etiology, pathology and serology of the disease. There has not been, however, anything which seems to control the extent of the paralysis. Nor has there been much advance in the treatment during the second stage, the period in which the nerve cells regain in part their function and in which contracture deformities are formed. But it is during this period that the treatment of the case is apt to lag or to be forgotten. The two same general and underlying principles of treatment are as paramount today as they were in the yesterdays of years ago: muscle training and splintage. Massage, hot baths, electricity, etc., are only minor adjuncts to these two important factors in treatment.

In the third stage there has been made in recent years great advances, especially in surgical procedures. Braces still play a most important part in the final analysis of many cases, but it is obvious that there are many defects in the use of a brace. Not only are they undesirable from the patient's viewpoint, but frequently fail to give the desired result or may be mechanically totally impractical. On the surgical side the careful analysis of operations after many years of observation has made possible the discarding of operations which theoretically were correct but practically were found not to work, while at the same time there has developed a better understanding of the physiology as well as of the path-

ology of the skeleton and its muscles. All this has led to operations well founded and practical.

Two important points are thus to be emphasized. First, that contracture deformities can be prevented by proper splintage during the second phase of poliomyelitis and, secondly, that present day surgery offers much to these cripples who too often are declared hopeless and left to struggle in life with a physical handicap.

In planning any operation for a paralytic foot, not only a careful study must be made as to the muscles paralyzed and the weight bearing weakness which thereby results, but an analysis of the existing contracture deformities is most essential. The purpose of any operation should be first, stability; second, locomotion and third, the doing away with any brace. In the problem of stability in the foot it is necessary that one have stability in both the knee and the hip and that these joints should not have any deformities which will prevent weight-bearing in straight line. It is obvious that a weight-bearing foot is of no value if the knee is flail or the hip markedly flexed.

The deformities of the lower extremity are due largely to three factors: First, contractures produced by the physiological action of a well muscle against a weak or paralyzed muscle; second, deformities due to faulty weight bearing, the muscle balance having been disturbed, and third, deformities due to the postural contractures following the long period of any one position while in bed. These may be represented by the toe drop when the anterior muscles are weakened, by the valgus foot in weight bearing upon a flail or dangle foot and by the flexion deformity of the hip after lying in bed with the leg drawn up on the abdomen.

Inasmuch as the deformities of the hip and the knee play so important a part, when present, in the correction of a foot disability a brief review of the methods for their correction will be given.

Hip Deformities—The most common type of hip deformity is that of flexion with abduction and some outward rotation. It is produced largely by the frog position assumed by the patient while sitting in bed. In those cases in which the abductors and internal rotators are weakened the condition is made worse by the action of the psoas and the tensor fasciae latae muscles. This deformity can be corrected by the Soutter or Campbell operation, the purpose of each being to lower the attachment of the muscles and fasciae attached to the anterior superior spine of the ilium. Before the cast is applied some hyperextension should be obtained. In the milder cases a simple tenotomy of the ilio-femoral band (a continuation of the tensor fasciae latae muscle) will suffice to overcome the flexion. Good results should be obtained.

Knee Deformities—The usual deformity is that of flexion and here again we have either a contracture of the good muscles against the paralyzed

ones or a contracture due to posture. In some cases a combination of the two factors may exist. If the contracture of the hamstrings is not too great the deformity may be overcome by gradually straightening the knee in a plaster of paris cast. After the cast has been applied in the position of deformity it is cut across behind the knee, leaving it intact in front to act as a hinge. By the use of wedging at the back the knee can be gradually extended. If the anterior group is paralyzed the tendon of the biceps may be transplanted into the patella. It is not advisable to do a resection of the knee as a more serviceable leg can be obtained by using a brace which has a lock joint at the knee.

Foot Deformities—Practically all knee and hip paralytic deformities have an associated foot deformity while many of the foot deformities are free of any trouble in the hip or knee. Therefore the greatest number of operative cases in paralysis affecting the lower extremity have to do with deformities of the foot (including the ankle). The problem in the paralytic foot is largely that of stability although the power of locomotion below the knee is desirable, but not essential. To attain this objective the first efforts in treatment was directed along the line of braces. Braces, however, were found to be impractical and impossible in many cases, on account of the type of the deformity, while in those cases where it was possible to use them the braces were unsatisfactory on account of the frequent repairs and changes incident to use and growth and also on account of the esthetic factor. Therefore an attempt was made to give stability through some operative interference. Many different lines of attack have been made but most of the operative procedures have been discarded after a careful analysis of their end results, the results found at the end of several years' observation.

Tendon transplantation in the foot cases seemed to offer much but the results have been so poor that it is now seldom done except as an adjunct to some form of arthrodesis. Not only did the transplant of the tendon weaken the good muscles but it was difficult to equalize the muscle balance. When walking was resumed the foot was most apt to again assume some deformity, giving a faulty weight bearing.

Silk ligaments as suggested by Lange had as their object the furnishing of a strong guy which would correct the deformity and hold the foot in a neutral position. Heavy strands of silk were so placed through the bones as to represent in a way the tendons of the paralyzed muscles. It was found that when weight-bearing was resumed that they often cut out of the bone and thus allowed a return of the original deformity. It was also observed that the silk did not lengthen with growth and that a deformity, the reverse of that corrected, would eventually occur. They have therefore been discarded.

The use of the tendon as a guy, leaving its attachment intact and replanting its muscular origin into the tibia or fibula, according to the plan of Gallie and Cordivilla, has also been found to give rather bad results when weight bearing was resumed. The same difficulties were encountered as in the use of the silk ligaments.

The problem was then attacked through the bones and the joints of the foot and ankle and from this work there have been developed three or four operations which have given most satisfactory functional results.

A knowledge of the physiology and anatomy of the foot is essential in any treatment of the paralytic foot conditions. In order that the weight of the body may be thrown forward and at the same time have the foot straight it is essential that a fair range of dorsal flexion be had. This motion of dorsal flexion as well as plantar flexion takes place almost entirely in the joint formed by the astragalus with the tibia and fibula. If this motion is lost then a strain is thrown upon the mid-foot which gives rise to pain and also leads to an outward rotation of the whole leg so as to carry the weight off the inner side of the foot rather than off the ends of the toes. This in turn causes a strain upon the internal lateral ligament of the foot as well as to the muscles of the leg and thigh.

In order to maintain a balance upon uneven surfaces it is necessary to have stability of inversion and eversion of the foot. These motions take place in the subastragaloid (calcaneo-astragular) joint. Lateral motion may be lost and yet a very serviceable foot be had, such as is found in an artificial leg.

It is to be seen then that in any operative procedure it is possible to destroy lateral motion, but that flexion of the foot should be retained. The deformities of the foot are named according to the position of the foot in its relation to the leg: equinus, calcaneus, valgus, varus, etc., or any combination of these positions, as equino-varus, calcaneo-cavus, etc. After determining the type of deformity it is also essential to note the amount of power remaining in any muscle or group of muscles and also the changes which have taken place in the shape of the bones of the foot and their relation to each other. The type of operation is then selected for the particular case.

Astraglectomy—(Whitman Operation) — This type of operation was designed for the flail or dangle foot (calcaneus) but has also been used in other deformities where the posterior group of muscles are not active. It consists in the removal of the astragalus and allowing the calcaneus to articulate with the tibia and fibula. This retains the motions of dorsal and plantar flexion but destroys the lateral motions. The most important step in the operation is to shift the weight of the body forward upon the foot by displacing the

foot backward. This operation has given most excellent results.

Hoke Operation—In this operation the subastragaloid joint is cut across, removing the upper part of the articulating surface of the calcaneus and the under border of the astragalus. The head and neck of the astragalus are next exposed and removed by cutting the astragaloscaphoid ligament and bisecting the neck and then removing it and the head from the foot. The cartilage of the scaphoid is removed and the foot displaced backward so as to shift the weight forward upon the foot as in the Whitman operation and also to correct any deformity. The head and neck are then reshaped so as to fill the space between the body of the astragalus and the scaphoid and the wound closed. This operation has given most excellent results and has also been used in club foot and flat foot cases. It does not give the shortening of the Whitman operation and the foot has a more normal appearance but it does not allow the amount of forward shifting of the weight as is obtained in the astraglectomy.

Transverse Tarsectomy—(Davis Operation)—This operation is an arthrodesing one which also allows the foot to be displaced backward. By means of a broad chisel the foot is cut across on a transverse plane through the subastragaloid joint and by loosening the soft tissue on the fibula and tibia the foot can be displaced backward. This operation destroys all lateral motion and shifts the weight bearing but does not allow of correction of the forefoot deformity or the rotation of the calcaneus. The results in selected cases are excellent.

Simple arthrodesis may be done subcutaneously or by dissection and may involve one or more joints. The operations of Ryerson and Dunn and of Soule all involve the destruction of the subastragaloid joint, together with one or more of the articulations between the astragalus and calcaneus and the mid-foot. The objective is to destroy lateral motion and at the same time correct the deformities of the fore-foot. In selected cases they give good results, especially the triple arthrodesis of Ryerson.

Panastragloid Arthrodesis—(Lorthoir, Steindler, Goldthwait, Albee)—In this operation all the articulating surfaces of the astragalus are destroyed, thus doing away with the flexion as well as the lateral motions of the foot. It is indicated in only a few cases and is thus seldom done.

The after treatment in all of these types of operations is the use of a plaster of Paris cast for a period of three to four months with the exception of the Hoke operation, where a slightly shorter period of fixation is demanded. It is always well to change the cast or at least carefully examine the foot at the end of the second week and make at that time any correction in the position of the foot which should be necessary. A slight equinus is

better than a slight calcaneus position, a slight valgus better than a slight varus position. Upon the removal of the cast, braces should not be necessary but attention should be given to the shoes to see that the weight bearing is proper. There should not be any pain in the feet.

The ideal age for operation is eight years. The time has gone when the paralytic child is to be dismissed with a deformity of the foot to handicap it throughout life. No longer should the parent feel that every thing has been done until a most thorough study has been made of the possibility of some surgical interference. There are but few deformities of the feet, especially those resulting from poliomyelitis, which cannot be improved.

COMPARATIVE STUDY OF ORIENTAL MEDICINE

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My only excuse for presenting this study is my impressions of Oriental conservatism and what we may learn from such observations. In my recent tour of the world I endeavored to visit the interesting hospitals enroute. With no exceptions I was accorded the most gracious and considerate welcome. In many instances they sought a comparative regime of the case, anxious to know what we would do in similar conditions.

A study of the hospital records convinced me that their mortality rate was no higher than ours in similar diseases: such as acute and chronic diseases of the gastro-intestinal tract, chest, nerves, eye, ear, nose and throat, traumatic and emergency surgery. I attribute this record to the fact that the medical standard is high, and the staff consisted of European and English graduates, with an occasional American. Indeed some of the best work was done at Seoul, Korea, by Americans. Also in the Philippines, in the oldest hospital on the island, one of the surgeons was a graduate of the Dallas School of Medicine.

With the exception of Calcutta and Cairo the hospital equipments were inferior to those in our country, for the chief reason of the lack of funds. Frequent apologies were offered as to the meager furnishings and rather untidy appearances when conducting me through the wards. Few hospitals were equipped with roentgen ray, except in the larger port cities. Those thus equipped had rather primitive apparatus and confined its use to bone work, except in the British hospitals in Bombay, Hong-Kong and Cairo. Few of their roentgenologists do soft tissue work of the gastro-intestinal organs. In Manila and Bombay soft tissue work is done, but little reliance or importance given to stomach and duodenal ulcers, gall bladder shadows, or the visualizations of the appendix. At no place did I see any reliance placed on roentgen-ray diagnostics of the appendix or duodenal ulcers. In the J. J. hospitals of Bombay

the Buckey diaphragm is used very effectively in spinal and bone radiography. In this hospital much stress is placed on stomach palpation.

I was unable to find any deep roentgenotherapy being done in the Orient, and when I suggested its use in a demonstrative case of exophthalmic goitre they seemed much surprised. This same case of goitre was being treated with a thyrodoxin with gratifying results. Surgery is also used in these cases, but rather conservatively and reluctantly, claiming extirpation will not correct the underlying cause.

In many of the hospitals I was reminded of those seen in South America where the patients are cared for by relatives, who bring the food and administer the medicine. This is done only in the free wards, and as a rule the sanitary conditions are not good. Yet the peculiar thing is that the mortality rate remains practically the same. Even in their abdominal surgery sepsis is the exception. This may be due to the patients' strong resistance and endurance.

Much inconsistency is prevalent in the Orient, the same as with us. One hospital, not overly careful with asepsis, filtered the air going to the operating room, making it oppressively hot with dead and stagnant air.

With few exceptions the laboratory equipments are far inferior to ours. Yet in India I saw the bacilli of cholera and plague beautifully demonstrated. There I was informed of the wonderful work Koch, of Germany, did for the plague-ridden districts. Hook worm is quite prevalent in southern India and Egypt; the treatment being quite similar to that used in Tulane University, New Orleans. I was shown some interesting cases in northern India near the border of Tibet. These cases migrated from the south. The fact that the natives go barefoot is a cause of the spread of the contagion.

The high mortality from snake bites in India is being greatly reduced through education. Near Bombay is a very modern up-to-date laboratory for the manufacture of serum. This serum is used for the treatment of snake bites, hydrophobia, plague, cholera, etc., and the results are similar to ours. Yet as I see it the true remedy is prevention and education as in all contagious and infectious diseases.

In many of the hospitals insulin is being used or had been used in diabetes, but more stress is being placed on the diet. In their opinion insulin is more effective in acidosis, or preparatory to operative procedures. They do not consider it as being curative in any sense of the word.

In the drug rooms of the various hospitals visited familiar drugs such as tinctures, concoctions and powders were seen, excepting in the drug rooms of the Chinese. After some persuasion I was shown the pharmaceutical room of a typical native hospital in the Chinese quarters of Hong-Kong. To my astonishment dried snakes, lizards,

sea horses, beetles, teeth, etc., were conspicuously displayed. I recalled my earliest history of Chinese superstition, and having a good interpreter I endeavored to learn the reason for such superstitious medication. With some hesitation I inquired as to what diseases snakes would be beneficial. The physician in charge elaborated on the virtue of snake decoction in certain nutritional diseases such as beri beri, stating that the decoction invariably cured by furnishing the necessary vitamins. In Manila for the same disease whole rice is used with the same gratifying results.

The Chinese use the sea horse decoction for bronchial troubles, explaining that the composition of the sea horse contains a large percentage of iodine and phosphorous. Pulverised teeth are used for rickets because of the abundance of lime and calcium. Indeed the Chinese are the pioneers in animal therapy. Strange to say, many of their instruments are American make—those of native manufacture are rather clumsy. In Shanghai general hospital an roentgen-ray machine was an American product.

The Orientals are very prolific but labor is usually normal, with a low percentage of puerperal fever. The pelvis of the native woman is roomy and Cesarean section is rarely necessary. The child-bearing period is from twelve to fourteen years of age. A woman unable to bear children is more or less ostracized.

The ignorance of the sanitary laws and the laxity of their enforcement predisposes to much intestinal disturbance. I was pleased to learn that the treatment in practically all the Oriental hospitals consists in thoroughly cleansing the intestinal canal and the enforcement of rigid diet. Flies, insects and domestic animals being more or less sacred in India predispose to any and all infection, and as a result the outdoor dispensary is crowded with patients suffering from eye, head and skin diseases. Even in Egypt and Palestine flies seem to be accepted as a matter of course, and what makes them doubly obnoxious is the fact that it is necessary to scrape them off as a "shoo" will not disturb them. It is a little disconcerting to see a repulsive case of ophthalmia covered with flies, and then suddenly realize that the infection bearing flies are visiting your own physiognomy. However, as I was informed, if your resistance is high you need have little fear. On reflection I am convinced there is some truth in it. The same will apply to cholera, as Prof. Koch demonstrated, though to the consternation of a number of scientific men at Bombay.

Many diseases are seen in the Orient that are rare with us, for example, elephantiasis, nutritional diseases such as beri beri, leprosy, plague, cholera, kali-azur, yellow and malignant fever, etc. These are treated on accepted scientific lines.

It is true that in the remote rural districts we still see the magical lure of ancient pharmacy with its fakes and fakers. To the observer, psychology

in the Orient as in America is overworked among the unthinking many. In one way or the other the masses hunger for miracles and cure-alls. This weakness of human nature is common to all the people of all races, the Oriental mind being the most gullible. Medicine and magic are closely associated. Even today the Greek word "pharmakon" means not only drugs but magic as well. The more mystery attached to a formula or prescription the more efficacious it is. Also the witch doctors are frequently found among the simple people. In Calcutta and Ragoon snake charmers are found who apply their madstone when bitten with a cobra. Upon making inquiry I learned that the fangs of the poisonous snakes are removed. Another valuable remedy among these people is dried mummy dust as a panacea for all ills. Suffice it to say, human nature is very similar the world over and we have a secret sympathy with Ponce De Leon who sought the fountain of youth, and alchemists who endeavored to find the elixir of life. These men were like ourselves.

Medicines and mode of administration of one generation are ridiculous to the succeeding one and frequently many secret formulas become a recognized prescription. One drug only have I been able to find that has stood the test since prehistoric times.

While viewing the crumbling walls of Memphis around the pyramids of an ancient antiquity I learned that only one drug has been carried down and through the musty centuries practically unchanged. The first Egyptian king, Hotep, who wrote his proverbs on papyrus more than 4000 B. C., used this ancient drug *aloes* for constipation—it was legitimized in a compound called "heira" and today in London it may be bought under that name. Back in mythology we hear of it being used by Escalapius Roman doctors, Arabian monkish doctors and modern doctors, all of whom use it in one form or another. This observation proved to me one thing, namely, since pre-historic man we have known that the intestinal canal was a source of much evil. All down the medical path of antiquity from ancient Egypt, Persia, to the medicine of Julius Ceasar and modern times, just one drug, the dried juice of a common Oriental plant *lived* while medical progress marched down the musty centuries of skepticism and superstition.

Prior to visiting the Orient I believed Americans to be the greatest nostrum users in the world. I now give the laurels to the Orientals. In animal products, however, we still are running them a close race.

Ignoring their plagues and famines I was unable to find statistics placing their death rate higher than ours. Life insurance companies could safely follow the law of general average. Their hospital records showed a small mortality percent-

age in gastro-intestinal cases. I especially stressed these cases as I have for the last few years been convinced that America is losing too large a percentage of these gastro-intestinal cases. I, therefore, especially inquired as to the frequency of these cases and method of treatment. I found in the Orient a great percentage of these cases, especially enteritis.

My next three questions were asked at practically every hospital visited.

1. Do you have many cases of appendicitis?
2. What is your method of treatment?
3. Is it a preventable disease?

In reply to my first question it was negative, as far as the natives were concerned, but in the English hospitals, dealing more or less with Europeans, more cases developed for the simple reason that the dietetics and methods of living were so different.

The method of treatment is far more conservative than with us, with the exception of one hospital in Korea—whose chief surgeon was an American—with the proclivities of a snap diagnostician. In pus cases surgical interference is always instituted, if possible under local anesthesia, with the least possible traumatism to the viscera. I was agreeably surprised at the low percent of mortality in appendiceal cases as the result of this conservatism.

In the "Scotch hospitals in Tibirus Palestine, after wading through a mob of patients, I made the same inquiry. The answer was so unhesitating I shall repeat verbatim: "Do you know, doctor, sometimes we go two years without finding it necessary to operate for appendicitis."

As to the third question, is appendicitis a preventable disease, it was the consensus of opinion that Americans are a people of constipation and great eaters, therefore more prone to appendiceal trouble, a condition in which the Orientals are immune.

In conclusion I wish to say that we grow as we come in contact with others, weigh opinions and results and view all with an open unbiased mind.

The Orientals can teach us much, and we in turn can instruct them. Both must realize "there is nothing new under the sun," only new application. The man of best judgment will make the best application.

I wish to go on record as saying that more people are sacrificed in our over-zeal in relieving them of their appendices than ever were sacrificed before we realized the chief function the appendix possessed. At a medical meeting held in the Orient I contended that surgery among the Americans was too prevalent, especially abdominal surgery and particularly surgery of the appendix and that more conservatism should be used and the case more carefully studied. This remark was based on my personal observations at home

and the results of conservative methods as practiced in Europe and in the Orient.

The point I wish to emphasize in this paper, aside from its general knowledge, is the importance of more conservatism in abdominal surgery, especially of the appendix, thus bringing medicine and surgery to a more normal keel.

CHOREA GRAVIDARUM—IS TERMINATION OF PREGNANCY ADVISEABLE IN SEVERE CASES?

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This question came up for discussion in our work in the obstetric division of the Los Angeles General Hospital. The best way that it could be answered, as far as our experience is concerned, would be in a review of our severe cases.

Patient No. 1, in our series, Mrs. McD., entered the hospital May 3, 1924. She is a primipara, age thirty-two, married twice, no pregnancies with her first husband. First marriage in 1917, second in 1923. She had a "nervous breakdown" in 1918, and another in 1921; following which she developed purposeless movements and which have persisted since. On admission she was violent and struggling and in active labor. Mentally and emotionally she was uncontrollable. The urine examination was negative. Following the delivery, she was examined by our consulting neurologist, Dr. Meyers, who pronounced her suffering from chorea involving all the muscles of the body, including even the tongue. The infant was a normal male weighing five pounds, twelve ounces. She was put on sedative treatment of chloral with bromides and luminal sodium gr. ii. t. i. d. The second day she was just as violent, most emotionally disturbed and had to be practically restrained. There was a slight improvement on the third and fourth days. On the fifth day post partum she was markedly improved; the patient lying quiet, with just an occasional quiver. Ten days post partum she was almost well; and according to her own statement, was not "shaking" any more than before she became pregnant. Emotionally she is normal.

Patient No. 2, Mrs. R., entered the hospital April 3, 1924. She is a Mexican, primipara, age seventeen. Eighteen months previous she had what she called an attack of "rheumatism." In February she developed purposeless movements, she gradually became worse and on admission she was violent and in almost constant motion. She did not know when her last period was, but by physical examination she was about eight months pregnant. She was emotionally unstable. We immediately put her to bed, gave her a light nourishing diet and ten minims of a three per cent solution of sodium cacodylate in fennel water three times a day. Occasionally she received

about gr. xv. of sodium bromide. With the rest in bed, she improved to an extent so that two weeks after admission she was able to put on a gown without being thrown into violent spasms as she would have been on admission. "We" carried her along and three weeks after admission she delivered spontaneously a female weighing five pounds five ounces. Ten days post partum the patient was able to walk home and was clinically cured.

Patient No. 3, Mrs. D., entered the hospital with violent choreiform movements and occasional tonic convulsive attacks. She was admitted January 31, 1924, and was then about eight months pregnant. She was a para iii, and gave no history of such attacks with her previous two pregnancies. Our neurologist pronounced her a case of chorea, with possibly associated idiopathic epilepsy to account for the convulsions. We put her to bed, gave her on an average the treatment of Patient No. 2 and she began to improve although the choreiform movements did not stop. On March 7, 1924, she delivered spontaneously a female weighing seven pounds seven ounces, normal in all respects. The recovery was most marvelous and in ten days following the delivery she was discharged and clinically cured. There were no further attacks of tonic convulsive nature.

Having then a case of chorea, near term, is it justifiable to immediately conclude that the patient's pregnancy should be terminated? Our results show that the patient does not suffer any by being carried through to term, and the infant is given the advantage of the further development in the uterus. The only way that such a question can be definitely answered is by publishing sufficient number of cases from a sufficient number of individuals; and it is for this purpose that I am offering this paper, in order that further results may be forthcoming.

SPECIAL ARTICLE

MORE ADEQUATE SUPPORT NEEDED FOR INDIANA UNIVERSITY

Last year, 1925-26, one hundred and seventeen freshmen medical students were enrolled in the Indiana University School of Medicine. This class was selected from 350 applicants.

The class was thirty per cent larger than it should have been, considering the laboratory space available at the university. As a consequence, twenty of these students had to work in the animal and incinerator room. This condition of crowding is typical of most other departments on the campus. Attendance at the university has increased out of all proportion to the building program. This is particularly true in the Departments of Chemistry and Physics, departments in which premedical students must work.

The problem of appropriation for the State University is, therefore, of general interest to doctors of medicine and attention accordingly is directed to the following facts; the following table gives the funds appropriated by neighboring states for their state universities in 1925:

Michigan	\$7,628,501
Illinois	6,265,782
Ohio	6,045,789
Ohio	5,130,516
Minnesota	4,063,047
Wisconsin	4,025,003
Indiana (Indiana and Purdue)	2,598,173

The average appropriation of these six neighboring states for higher education, exclusive of normals, is \$5,526,439.

The appropriation of the State of Indiana for Indiana University and Purdue combined is less than one-half the average of these six neighboring states and a million and a half below the lowest of these six neighboring states. Indiana University is asking for an additional appropriation of one and a half million dollars. Not only has the State of Indiana failed to support her state institutions of higher education as neighboring states have done, but higher education in general in Indiana is under-supported, as indicated by the fact that the total receipts of all non-state and state colleges and universities in Indiana is \$7,671,362, only a few thousand dollars more than the appropriation made by Michigan for her state-supported institutions of higher education alone. Yet the per capita wealth of Michigan is less than that of Indiana.

Indiana University received from the State in 1925, \$1,365,000. She needs an additional million and a half, a total of \$2,865,000, to approximate the income of neighboring state universities.

This increased appropriation of \$1,500,000 is needed by Indiana University:

	1926-27	1928-29
For staff	\$350,000	\$400,000

The teaching staff at Indiana University is greatly under-manned and underpaid. Departmental budgets must be increased to provide for many much needed additional men and for better remuneration for the more meritorious of the present staff. The salary scale at Indiana University must be made equivalent to that of neighboring state universities for men of attainments comparable to those of men of neighboring universities.

	1926-27	1928-29
For maintenance	\$550,000	\$500,000

1. Additional for repairs and improvements including plastering, painting walls, drives, etc., \$115,000-\$150,000.
2. Increase in library appropriations for books and periodicals, \$150,000-\$150,000.
3. Increase for school and departmental permanent equipment \$180,000-\$190,000.
4. Increase in departmental current supplies, \$55,000-\$60,000.
5. Increase for grounds and streets \$50,000.

	1926-27	1928-29
For buildings	\$600,000	\$600,000

The carefully worked-out building program of Indiana University calls for \$6,172,000, approximately \$600,000 per year for ten years.

BUILDING PROGRAM OF INDIANA UNIVERSITY

AT BLOOMINGTON:

Power plant, equipment and tunnel extension	\$500,000
Addition to Chemistry building	200,000
Building for School of Education	582,100
Addition to Medical building, plus equipment	200,000
Building for Geology, Zoology, Botany and Museum	692,160
Group of small buildings the most important of which is an addition to Science Hall for the use of physics	148,000
Auditorium	800,000
Administration building	350,000
Building for School of Music	350,000
Building for Journalism	150,000

Bloomington total

\$3,972,260

AT INDIANAPOLIS:

Completing Medical School building	\$200,000
Additional wards for the Robert W. Long Hospital	500,000
Psychiatric Clinic	350,000
Out-Patient building	150,000
Therapeutics building	400,000
Environmental medicine	350,000
Clinical building	250,000

Indianapolis total

\$2,200,000

Grand total

\$6,172,000

In the building program at Bloomington the School of Medicine is directly affected by the appropriations for the chemistry building, medical building, zoology and physics buildings, and has its share of interest quite equal to that of any other group in the power house, auditorium and administration buildings.

Eighty-five per cent of the entire building program affects the Medical School either directly or indirectly.

There are many evidences of growing prosperity in Indiana, some of the more reliable of which were reviewed by Lionel D. Edie in his article in the *Indianapolis Star*, from which we quote as follows:

"Out of an annual net income of approximately \$1,725,000,000 the people of Indiana save about \$290,000,000. This large capital accumulation annually is an evidence of the spirit of thrift among the people of the State. Some of the signs of the growth of savings are to be found in records of life insurance sales, savings bank deposits, building and loan assets and new homes built. The following tables presents an estimate of the amount of these items in 1925, together with the amounts by which 1925 exceeds 1920.

GROWTH OF SAVINGS

FORM OF SAVING	Amt. in 1925	Amt. Increase 1925 over 1920
Savings accounts, all banks \$	217,600,000	\$45,200,000
Building and loan assets.....	208,500,000	114,000,000
Life insurance in force	1,363,500,000	561,000,000
Life insurance premiums.....	63,400,000	26,100,000
New homes built	36,090,000	21,700,000

This record is a fine testimony both to the will and to the ability to save."

The increase of one and a half million for the support of Indiana University is only:

3.3 per cent of the *increase* in savings accounts in Indiana in 1925 over 1920.

1.4 per cent of the *increase* in building and loan assets in 1925 over 1920.

6 per cent of the *increase* in insurance premiums in 1925 over 1920.

It is less than one per cent of the *increase* in these three savings items, 1925 over 1920, about one-half of one per cent of the total annual savings of the people of Indiana, estimated at 290,000,000.

Now the question naturally arises, what will this increase of one and a half million for Indiana University cost the individual taxpayer? Counting the assessed valuation of Indiana at \$5,400,000,000 it will take a tax levy of .00028, that is .28 of one mill, to yield an increase in maintenance of Indiana University amounting to one and a half million a year. This means that a man who pays taxes on \$10,000 will pay \$2.80 additional to Indiana University each year, that is 28 cents for each \$1,000 of his assessment.

What will the total appropriation of \$2,865,000, asked for Indiana University each year of the coming biennium, cost the taxpayer? It will take a tax of .53 of one mill to yield an income of \$2,865,000. This means that the man who pays taxes on \$10,000 will pay \$5.30 to Indiana University a year, that is, 53 cents for each \$1,000 of his assessment. It takes so little of the savings of the prosperous that no one with the interest of his state at heart can fairly object, while the poor man with property assessed at \$1,000 will pay 28 cents more a year, the price of an ordinary movie. The man of wealth may send his son to

Harvard, but being public-spirited he is happy to pay taxes at the rate of 53 cents on each \$1,000 of his assessed values for the support of a state university. For the poor man, the cost is insignificant also, and it offers the educational salvation of the poor man's son.

We spend many millions annually for the constructing and maintenance of highways. We all approve this highway program and cheerfully pay the gas tax which supports it, because we get more miles per gallon of gas used, have less wear and tear on car and driver. In fact, it is worth to us more than it costs. But roads are not an absolutely major consideration. Rome had her road program, but her people deteriorated and the barbarian invader trod the Appian way. The children of Indiana are our most valuable possession, their welfare, their future, an absolutely major consideration. Shall we not spend quite as liberally for their educational opportunity as for our highways, knowing that here also what we spend is saved, is worth many times its cost.

Seven hundred years ago the University of Naples, one of the first universities, was founded solely by the fiat of Frederick II about 1224, as a School of Theology, Jurisprudence, Arts and Medicine, his design being that his subjects should find accurate instruction in every branch of learning and "not be compelled in the pursuit of knowledge to have recourse to foreign nations or to beg in other lands." Shall we have a vision for the boys and girls of Indiana less than that of Frederick II, 700 years ago, or shall we with pride bring the educational facilities of our State University fully up to that of neighboring state universities?

B. D. MYERS, M.D., Bloomington.

IMMUNIZATION AGAINST DIPHTHERIA

It has been found that soaps—chiefly of the unsaturated fatty acids—and preferably sodium ricinoleate, detoxify bacterial toxins, with the exception of botulinic toxin, and that such soap-toxin mixtures are antigenic. Having found that experimental animals, as rabbits and guinea pigs, may be immunized with such detoxified toxins, W. P. Larson and Howard Eder, Minneapolis (*Journal A. M. A.*, April 3, 1926), tried them on human subjects. It was found that solutions of highly purified sodium ricinoleate caused no reaction other than a slight burning sensation at the point of injection, which lasted only a few seconds. Diphtheria toxin-soap mixtures were then injected into a group of laboratory workers who had been found to be Schick positive, each subject receiving 0.125 L + toxin in a 1 per cent soap solution in a total volume of 1 cc. The injections were followed by a mild local reaction, which followed the course of an ordinary positive Schick test. Later, 2 per cent soap solutions were used and the injection was made intramuscularly; in this way, the reactions have been eliminated. The use of sodium ricinoleate as the detoxifying agent eliminates the danger of sensitization to foreign substances, since it is not antigenic. Whatever the technic of antidiphtheritic vaccination may be, it is imperative

that the injections cause little or no reaction. The sodium ricinoleate method of modifying the toxin is equal to antitoxin in this respect. After having satisfied themselves that diphtheritic toxin-soap was fully equal to, and in many respects superior to, toxin-antitoxin as an immunizing agent, Larson and Eder felt that they should thoroughly investigate the possibility of immunizing with one treatment and, further, to determine the optimal interval between treatments for the best results, should repeated injections seem necessary. In one group, immunity developed in 38.5 per cent of cases within five weeks following one injection. In another group, 66.6 per cent became negative to the skin test in eight weeks. This was undoubtedly a particularly favorable group, since only 52 per cent of a larger group have a negative test after twelve weeks. However, the fact that a 1 per cent soap solution was used instead of a 2 per cent may be a factor. Repeating the number of injections does not seem to increase the number of negative skin tests within the first twelve week period. Out of a group of twenty-three subjects given two injections at an interval of seven days, only 47.8 per cent gave negative tests twelve weeks from the time they received the first treatment. Retests which are now under way indicate that the percentages of negative skin tests will be very much higher at the end of the six month period. On the basis of these results, the authors do not hesitate to recommend the sodium ricinoleate method as safe and effective in immunizing against diphtheria.

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Devoted to the Interests of the Medical Profession of Indiana

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EDITORIALS

THE WEST BADEN SESSION

The Indiana State Medical Association will meet this year at the West Baden Springs Hotel on Wednesday, Thursday and Friday, September 22nd, 23rd and 24th. To our notion it is an ideal place to meet, and for many reasons, not the least of which is the fact that the members and all of the activities of the Association can be under one roof and with facilities probably much better than can be obtained in any other place in Indiana. There we shall be away from the confusion and distractions of a city and our scientific meetings can be given serious attention. Furthermore, when there are no scientific meetings there are opportunities for recreation of various kinds, and without going miles to secure it.

So far the arrangements are more promising than we have had for many years. There will be the usual golf tournament preceding the meetings of the House of Delegates and Council which will be held in the afternoon of the first day. The House of Delegates will meet earlier than usual in order to transact the business of the Association without undue hurrying. Then there will be the general entertainment on the evening of the first day, which promises to be very enjoyable because the hotel management has provided some unique features. The second day will be devoted entirely to scientific work, and the same is true of the third day with the one exception that there will be an early morning meeting of the House of Delegates. The banquet will be held on Thursday evening, at which ex-Governor Morrow, of Kentucky, has been invited to make the principal address. The ladies will be entertained at tea at the Hoosier Country Club on Thursday afternoon.

The program committee announces the following papers:

Infection of Accessory Sinuses—By John W. Carnack, Indianapolis;

Malaria Therapy of Paresis—By Max Bahr, Indianapolis;

Non-Operative Treatment of Cataract—John R. Newcomb, Indianapolis;

Some Phases of Tuberculosis—Ernst Loewenstein, Vienna, Austria;

The County Secretary; Life of Medical Organization—By Olin B. West, American Medical Association, Chicago;

Guidance of the Mild Mental Case—By Paul S. Johnson, Richmond;

Experimental and Clinical Observation on Arterial Hypertension—By Ralph H. Major, Kansas City.

Differential Diagnosis of Mediastinal Lues—By Frank E. Sayers, Terre Haute;

Conduct of Ordinary Labor—By Pierce McKenzie, Evansville.

Modern Methods in Diagnosis and Treatment of Heart Disease—By Edgar F. Kiser, Indianapolis;

The Emotional Life and Its Importance in the Production of Pathological Conditions—By Charles P. Emerson, Indianapolis;

Dyspepsia in the Breast Fed Infant—By T. H. Harrell and Elmer Boyd, Evansville;

Precancerous Lesions of the Cervix Uteri—By F. C. Walker, Indianapolis;

Varices of the Broad Ligament—By A. C. Arnett, Lafayette;

The Prospect of the Prostatic—By Alexander Randall, Philadelphia, Pennsylvania;

Diaphragmatic Hernia, with Report of Case—By George T. Johnson, Terre Haute;

Considerations in the Management of Infections in the Genito-Urinary Tract—By N. K. Foster, Hammond;

Delay and Its Consequences in Acute Appendicitis—By D. F. Cameron, Fort Wayne;

Regional Anesthesia in Surgery—By W. R. Davidson, Evansville;

Some Neglected Factors in the Goitre Problem—By M. A. Austin, Anderson;

The Relationship of Accessory Sinus Infection to Diseases of the Eye—A Symposium—By B. J. Larkin, Indianapolis, J. F. Barnhill, Indianapolis and Drs. Cole, Beeler and Smith, Indianapolis;

Carcinoma of the Bulb and Adnexa—By Francis Lane, Chicago.

Post-Operative Treatment of Nasal Cases—By B. D. Ravdin, Evansville;

Foreign Proteins in the Treatment of Inflammatory Eye Conditions—By M. G. Erehart, Huntington.

All essayists have been requested to furnish abstracts of their papers for publication in the official program which will appear in the September number of THE JOURNAL. Those appointed to open discussions are expected to have copies of the completed papers so that they can better prepare themselves for intelligent discussion. Those intending to go to West Baden are asked to make their hotel reservations promptly.

HAY FEVER

The hay fever season is upon us and many a hay fever sufferer will pay the penalty of neglect if he or she remains in this climate. Most of the victims have tried various kinds of treatment, but as a rule most of the treatment which the

average hay fever patient tries is that recommended by quacks, or perhaps advertised in lay periodicals. Too long the medical profession has either treated hay fever empirically or frankly told the afflicted ones that the only relief comes from change of climate during the hay fever season. In consequence these sufferers, like a drowning man, grasp at a straw and try anything that is offered. In reality much can be done for these hay fever sufferers, and not a few of them can be cured. In the first place various abnormalities within the nose, such as diseased sinuses, a deviated septum, or the presence of polyps, not only obstruct breathing but tend to produce or aggravate hypersensitiveness, and such abnormalities should be given appropriate attention. Then the patient should be given the benefit of such tests as definitely determine the irritant that is responsible for the hay fever, which in most cases is the pollen of certain flowers or weeds. Having arrived at a definite conclusion as to the nature of the irritant, the next thing in order is to create an immunity, and this generally can be secured through the intelligent use of properly prepared vaccines made from the offending irritant. It does not do to give this treatment in a sort of hit and miss fashion, nor follow any set rules for each and every case, as individual susceptibilities vary, and the treatment must be made to fit the individual case. Even when given according to rules laid down by some of the manufacturers, favorable results are secured in perhaps fifty per cent of the cases, but when the treatment is prescribed intelligently, and with due regard for the susceptibility of patients and the reaction secured, very much better results are obtained. In short, it is up to the members of the medical profession to study this whole question carefully with a view to rendering intelligent advice and treatment, to the end that the most distressing symptoms of a common ailment may be relieved largely if not wholly.

THE BUSINESS OF MEDICINE

By the business of medicine may be meant the economic return of the medical man's labors. The necessary needful whereby he may support himself and his family, create an estate for their future support in case of his prior death wherewith he may satisfy and the various obligations which belong to his personal and professional lives.

That a change has taken place in the relation between the public and the physician is quite as apparent as that change which has come about between the public which owes and those which this public owes. This is not debatable, it is axiomatic. With the advent of the automobile, the tremendous increase in extravagance of the present day, together with the high cost of living and the cost of high living, people have in a very great measure lost their sense of obligation and postpone their just and honest debts as long as

possible if not indefinitely. This condition of affairs is evident to anyone who gives credit, and there is no occupation, trade, profession or calling which gives credit as readily as does the medical profession. Admitting that ours is a noble profession and that its first aim is a life of busy usefulness, nevertheless the above considerations must be satisfied if the doctor is to live and die free from debt. These conditions have been met by various changes in the business world. Profits are in some cases so great that those who pay make good the losses for those who do not and in installment payments a very few payments begin to show a profit to the merchant. That physicians pay enormous profits for all their necessities is beyond question, and the only explanation possible is that which is equally the case in other lines of merchandise—profiteering.

The cost of physicians' supplies are absurd and unwarrantable and are in a large measure responsible for ever increasing hospital rates, the graft thereby being passed on to the poor and needy. X-ray materials are beyond all sense and reason and simple apparatus placed in the class with instruments of precision. As long, however, as medical men are gullible enough to pay eight dollars and a half for a pair of scissors and two dollars for a knife that can be made and sold at a profit for, shall we say, fifteen cents, this sort of thing will continue. Even a benevolent and protecting government allows a charge of seven dollars a gallon for alcohol which can be made and sold at a profit probably for forty cents. Theoretically one is led to believe that denatured alcohol is an acceptable substitute but it cannot be burned in a lamp without smoking, it is harmful to the skin and the profession is deprived of one of the very best antiseptics it ever used. Salvarsan is another valuable remedy from which countless thousands were made by the promoters and with hardly a voice raised in protest.

A new class of professional workers has recently come into being, the salaried physician. He is either absurdly underpaid by the factories which employ him, or else is distinctly overpaid in comparison with the work he has to do. When it is realized that a five thousand dollar salaried position is equal to a ten thousand dollar practice it will be seen that it is the practitioner who faces high expenses, a variable income and a life of hard labor often bordering upon hardship who bears a far greater burden than the salaried official who need have no equipment, has many of his expenses paid and ample time for study, reflection and recreation, with able assistants, who by the way, often do most of the real work, and who is responsible to no one or perhaps the man higher up.

Whatever progress may have been made in recent years there is in the mind of the rising generation but little thought of responsibility, of fair play or the duty of paying just and honest debts.

For debt is in its very essence a crass violation of the spirit of fair play and of the golden rule. Again, with the increase of charity and philanthropy there has been an enormous increase in the pauper class; those who are so mendacious as to depend upon charity for the whole or a part of their needs. The present day system of benevolence makes this very easy. The free clinic, the free almost everything relating to sickness together with public health is not only curtailing in a tremendous degree the sphere of usefulness of the so-called family physician, but is making a race of paupers of our people and lowering their stamina and morale by taking from their sense of responsibility, obligation and pride. The activities of our school, district and industrial nurses by guiding cases into selected channels and by assuming responsibility which they should not assume is, in certain localities, a menace to the independence of those who should not accept charity and is furthermore much the practice of medicine as can be. It would be easy to multiply instances of interference with physician's orders by nurses, of the practice of medicine and surgery, of the urging of charity cases into certain professional hands, of the abuse of charity in our hospitals, and the recommendation of certain specialists by various authorities.

Is anything being done to correct these abuses? There is not. They are on the increase as any busy physician will testify.

Another abuse to which attention should be called is the taking, at greatly reduced rates, of radiographs for the medical profession. The fault here is two-fold, in the physician who sends his case to the hospital, and in the hospital which does the work. Many of these cases can easily afford the usual fees. No case should be admitted to a hospital x-ray laboratory which has not applied for hospital care in the usual way, through the house or out-patient.

Now nothing in this should be so construed as to belittle the need of worthy and deserved charity, or the need of relief of the truly poor, but just glance over the benches of our out-patient departments and see the fur coats, go into the wards and see the laces, hunt up the homes and see the autos and radios and see how much of it is really needed and deserved.—*Rhode Island Medical Journal*, May, 1926.

FLORENZ ZIEGFELD, who continues "glorifying the American girl," but insists that she be "modestly dressed" says, "the plumper girl is coming in." He predicts disappearance of the prevailing type that looks half starved as a result of dieting.

That's good news, for the tired businessman who sits in front. Still better news for the other man who wants the next generation to be worth while, and fears trouble when the half starved babies of half starved mothers grow up and take hold of the nation.—*Arthur Brisbane, Current Press*.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely free to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve you.

THE annual session of the Indiana State Medical Association will be held at West Baden, Wednesday, Thursday and Friday, September 22nd, 23rd and 24th. Make your arrangements early and go prepared for recreation as well as a scientific treat.

If anyone thinks that the medical department of Indiana University does not turn out good men, let him look at the record of graduates who take competitive examinations in various parts of the country. Our medical school is one that should be the pride of the profession of the state.

SINCE the publication of our list of approved laboratories we note that recently the South Bend Medical Laboratory has been placed upon the approved list. We hope that there are other hospital and private laboratories which will seek similar credit by the American Medical Association.

FOURTH of July has come and gone and as usual there have been a large number of accidents as a direct result of laxity in passing and enforcing laws preventing the use of fireworks. No matter how much we preach "A sane and safe Fourth of July" we never will get anywhere in preventing accidents until we have laws in every state that prohibit the sale of fireworks.

THE Chicago Medical Society on June 12th gave a testimonial banquet in honor of Dr. Charles J. Whalen, editor of the *Illinois Medical Journal*, which was attended by about five hundred guests. Dr. Whalen was presented with an out-fitted pigskin valise. We extend our congratulations, and are pleased to know that such a forceful and earnest contributor to the highest ideals of medicine has been honored by those who know him best.

It is said that the modern "makeup" of the female sex may be made grounds for divorce in Paris, for an old law still on the statute book says, "Whosoever attracts into the bonds of marriage any male subject of his majesty, by means of rouge or powder, perfumes, false teeth, false hair,

steel corsets, hooped petticoats, high heels or false hips will be prosecuted for sorcery and, if convicted, the marriage declared null and void." What havoc that law would create if an attempt were made to enforce it!

THE New York State Board of Health announces that diphtheria can be totally eradicated from the American continent if toxin antitoxin preventive treatment is employed in an intelligent and efficient manner. This statement is based upon the results secured from using this preventive treatment in various localities in New York state where the results for the three years during which toxin antitoxin treatment has been employed have been so satisfactory.

THE sterilization act of Virginia has been upheld by the supreme court of that state. According to the provisions of the law it is possible for the board of directors of the state colony for epileptics and feeble-minded to sterilize sexually any person under state custodial care who is feeble-minded or an epileptic and able to procreate his or her kind. There has been much objection to these sterilization acts, but in reality most of the arguments advanced are not worthy of very serious consideration. On the whole the medical profession is in sympathy with sterilization acts that are prepared and enforced intelligently.

Two of four fellowships offered by the University of Pennsylvania Graduate School of Medicine and open to American and Canadian competition have been awarded to graduates of the Indiana University School of Medicine. The two fellowships went to Alberta Leslie Jenkins and Norvell Chappel LeMar. The fellowships, which are in psychiatry and neurology were established this year for the first time. They are for three years and pay from \$2,000 to \$2,500 besides ten months' maintenance in hospitals during the course of the three years. The other two scholarships went to a University of Michigan student and the other to a Canadian.

THE value of insulin in the treatment of diabetics now is known, and recently the usefulness of insulin has been extended gradually until its value in post-operative shock, toxic conditions, either medical or surgical, and acidosis, is well established. Recently much has been said concerning the use of insulin-glucose in preventing post-anesthetic vomiting. It should be administered carefully in order to avoid unpleasant effects, but is considered by many anesthetists to be a very potent remedy in post-anesthetic vomiting. Perhaps the results are best in those cases due to acidoses and toxemia. The results secured by many specialists in anesthesia indicate that the treatment is worthy of more general use.

WHEN we hear a doctor maliciously poisoning the minds of patients concerning the ability, service and honesty of a reputable confrere, we feel that the best way to stop that is for the maligned to give the transgressor of decency and ethics a sound thrashing. Our medical societies are altogether too lenient with doctors who, in an attempt to feather their own nests, unjustly malign their confreres. Once in a while you can make a good citizen out of man a good deal more quickly and efficiently by using a club on him, and there are some doctors who would turn out to be really decent fellows instead of skunks if someone gave them a good beating.

ARTHUR E. GUEDEL, a well known anesthetist of Indianapolis, concludes an article on the "Place of Ethylene in Anesthesia" in the bulletin issued by the International Anesthesia Research Society as follows:

"Ethylene has an important and a definite place in anesthesia. It cannot displace nitrous oxide, for nitrous oxid is still our most refined and generally desirable anesthetic agent as far as it goes. There are, however, innumerable cases which fall between the twenty-five per cent limit of nitrous oxid, and the forty per cent limit of ethylene, and in these cases ethylene should be the choice above ether. Start with nitrous oxid. If it fails, go next to ethylene. If it fails, go then to ether."

AT last, at last! More and more do we find medical men awakening to the fact that the profession is face to face with efforts on the part of industrial and commercial organizations to take over the practice of medicine, and destroy the personal relation of doctor and patient, upon which the safety of both depends. Some of the eastern medical societies, through their bulletins, are advocating a complete reorganization of the medical profession with the idea of making better doctors of those already in practice, and uniting them more thoroughly with any plan for economic protection. Let the good work go on. We have been harping on this subject for several years and got little sympathy or co-operation in our efforts to try to get the medical profession to save itself.

MEDICINE, dentistry and allied interests are to have a permanent home in downtown Chicago. It is to be a beautiful, commodious, and centrally located home for all of the professional activities of Chicago. It is expected that the building will be ready for occupancy within the next two years. As planned the building will have twenty-four stories, and it will be modern in every respect and adapted to the needs of the medical and dental professions. Within recent years the idea of centralizing professional activities has grown in favor and many cities, even of only a few thousand inhabitants, have their professional buildings which prove highly satisfactory as homes for offices,

clinics, laboratories and commercial enterprises that directly deal with the medical and dental professions.

WE hope that the members of our Association have noticed the growth of the popularity of the weekly articles issued by the Bureau of Publicity and published so generally in newspapers throughout the State. We also hope that the members of the Association appreciate the fact that the work of the Bureau of Publicity requires time and thought on the part of a few busy medical men and that their work in looking after this Bureau of Publicity is a gratuitous job. We sometimes wonder if the rank and file of our Association really appreciate what is done directly and indirectly for their benefit by a limited number of medical men who give freely of their time and energy, serving as officers and members of committees. They deserve not only our praise but such encouragement and cordial assistance as may be given.

At a medical meeting in Wisconsin, following a discussion on periodic examination of apparently healthy persons, it was asked how many physicians present had been examined within the past year. Three of the seventy present raised their hands. It was pointed out that hardly a month passes but that some physician, dear to his friends and apparently in the prime of his life, suddenly drops from the ranks, and oftentimes from a purely preventable disease. It does not look well for medical men to urge periodic examinations of the apparently healthy when they themselves do not follow the advice given. The question put to Wisconsin doctors would meet with no better results if put to Indiana doctors, for unless we greatly misjudge the attitude of the majority of doctors in Indiana we doubt if there are a dozen in the whole State who, apparently healthy, have taken the examination we have recommended so strongly.

THE editor has no apologies to make for the size or quality of the editorial department of this number of *THE JOURNAL*. Frankly, he started on a much needed vacation trip just as the printers were crying loudest for copy. If he gets the needed rest, and if the fish in Canada are biting well, he will come back with renewed energy, and in the September number attempt to make up for any shortcomings that have gone before. We have only pity for the doctor who hasn't sense enough to know that he cannot do his best work unless occasionally he takes time for rest and recreation. Even a piece of machinery will not stand constant work, no matter how much good care you give it, and that is why a fine locomotive, regardless of how well it is running or how efficiently it is cared for, is given a rest after it has run a certain number of miles. Well, let us

hope that the fish bite for the editor and every other doctor in Indiana who loves rod and reel and is wise enough to take an occasional vacation.

It is reported that Henry Ford has announced that the doctors are asleep and that if they would invent something to prevent people from being sick they all would get rich. Perhaps we do not urge the general use of preventive measures as much as we should, and a very pertinent criticism is appropriate in connection with our general laxity as individual physicians to urge our friends and the members of the families of our patients to have periodic physical examinations. The *Health News* of the New York State Department of Health says, "In spite of the fact that scientific medical bodies endorse vaccination to prevent smallpox, how many physicians advise their clientele to have the babies vaccinated when they are six months of age? Most of them wait until the mother brings the child to the doctor stating that the school will not admit the child unless vaccinated. Furthermore, despite the fact that toxin antitoxin is recognized as a preventive of diphtheria how many physicians urge it in the families which they attend?"

IN this number of *THE JOURNAL* we publish a special article by Dr. B. D. Myers, of Bloomington, which points out specifically not only the needs of the Indiana University, insofar as funds are concerned, but the niggardliness of our legislature in maintaining higher education. Especially enlightening is the detailed information concerning the liberal manner in which surrounding states support their universities and other institutions of higher learning under control of the state, and with no more logical reason for it than can be charged to Indiana. The physicians of the state should be interested in this matter of maintaining and developing our universities, but in particular they should be interested in maintaining and developing our Indiana University School of Medicine which is greatly in need of funds for new buildings, equipment, and teachers. Perhaps if every medical man in Indiana will use his influence with his representatives in the Indiana legislature something may be accomplished in securing more generous consideration for our institutions of learning.

THE United States Public Health Bureau announces an increase in cancer mortality. Some of this increase is due to greater precision and accuracy in the filling out of death returns, but a given percentage can be attributed to a real increase in the cancer mortality. It is evident that the lay public needs education concerning the necessity of consulting reputable and trustworthy physicians when suspicious lesions appear. To flirt with the quacks and medical pretenders who exploit so-called cancer cures is irrational and

generally ends disastrously. The man who really has a cancer cure the value of which can be proved to an unbiased jury of medical men, need have no fear concerning his reward by the profession as well as the public, and it is a frail argument for the exploiter of the Koch cancer cure to talk about persecution. The regular medical profession stands ready to give credit to an irregular, a quack, or a bootblack who discovers a real cancer cure, but the regular medical profession is not going to be stampeded by unsubstantiated claims of exploiters or the optimistic testimonials of deluded laymen.

THE housewives of Fort Wayne wrap their garbage, and it is reported that the city pays something like forty thousand dollars for its collection. Wrapping garbage has very materially helped to reduce annoyance from flies, mice, and rats, to say nothing of foul odors and littered alleys. Likewise the wrapping of garbage has been of distinct value as a public health measure. Now the city is wrestling with the complaint of the garbage collectors to the effect that the paper used in wrapping the garbage is killing some of the hogs to which the garbage is fed, and therefore an ordinance was introduced in the council to do away with the wrapping of the garbage. Fortunately the women's organizations, wielding considerable influence now that their members have the vote, succeeded in having the proposed ordinance defeated. In many cities contractors pay for the privilege of collecting the garbage, but it seems to us that the public health aspect of this question is the principal one to receive consideration. As one woman very aptly put the question, "Are the lives of hogs more valuable than the lives of human beings?" As a side issue to the controversy, it may be remarked that it is strange that men ordinarily considered to have good judgment are not willing to decide questions on their merit but from the standpoint of political gain. This is one of the times when the fear of the results of the female vote may result in upholding an ordinance that makes for better sanitation and with it better health.

A PROPOSED amendment to the Harrison Narcotic Act provides that the Federal Government can prescribe and regulate the administration of drugs with narcotic qualities, and as one writer says, "If this precedent is established there is no reason why the Federal Government cannot prescribe and regulate the administration of anything from bicarbonate of soda to mercury." The Harrison Narcotic Law was passed under the assumption that it would make it impossible for addicts to secure their supply of "dope," and to prevent unprincipled people from making fortunes and fattening upon the infirmities of their fellowmen. As is well known the law has fallen far

short of its purpose, and the medical man is harrassed at every turn in his efforts to secure narcotics for legitimate purposes. Under the proposed amendment every prescription issued by a physician for a narcotic drug will be subject to review by any pharmacist who may be called upon to fill it. If for any reason the dealer has reason to question the propriety of issuing the prescription he cannot lawfully fill it. In other words, the pharmacist is entrusted with statutory authority to refuse to any sick person medicine that the attending physician has prescribed. The absurdity of the whole proposition would be laughable if it were not dangerous, and the thing for the medical profession to do is to oppose this tampering with the rights and privileges of reputable and licensed physicians in the prescribing of drugs for the alleviation of the sick and suffering.

FOR many years codliver oil was prescribed empirically. Within recent years we have learned to recognize the reasons for the value of this preparation in the treatment of those malnourished or undernourished. Particularly is codliver oil useful in the treatment as well as prevention of rickets. It is known that the antirachitic element of codliver oil varies considerably, depending upon the time of year in which the fish are gathered and the manner in which the oil is transported. At the present time it is possible to secure codliver oil that has been carefully assayed, and such preparation should be prescribed by physicians. Inasmuch as codliver oil is so valuable in the treatment or prevention of rickets, it may be used as a food rather than as a medicine and made a part of an infant's diet. Aside from this it should be recognized that direct sunlight is a necessary adjuvant, but to be most effective the child should be exposed to the direct rays of the sun. It is not amiss also to call attention to the fact that it is the ultraviolet rays of the sun which are effective in the treatment of rickets but that these rays are absorbed or attenuated by glass, so that if the best results are to be secured the exposure must be direct. As a substitute for sunlight, the ultra-violet rays, artificially produced, may be used. Quite recently it has been pointed out by pediatricians that the prevention of rickets is a very definite and important public health problem, and in consequence no child should be permitted to acquire rickets through inability of the parent to supply it either with codliver oil or sunlight.

AN Indiana doctor returning from Europe recently had an unpleasant experience with United States customs officials in New York. His wife was accused of having five thousand dollars' worth of jewels which customs officials claimed were purchased abroad and were being smuggled into this country. The statement of the doctor and his wife to the effect that the jewels had been purchased in this country before going to Europe,

and had not cost more than half the amount mentioned, had no effect with the customs officials who had to be shown by affidavits and other evidence that the truth was told. Meanwhile the doctor and his wife were put to considerable embarrassment, inconvenience, and expense in straightening out the tangle. Of course there was no redress, and the doctor and his wife had to be content with venting their wrath in uncomplimentary terms of customs officials in general and those of the United States in particular. Those who travel extensively say that on the whole the United States customs officials are the meanest on earth and pay little attention to consistency or decency in their dealing with travelers who have given absolutely no reasons for being suspicioned. It is a strange thing that some men, given a little authority, can misuse it so much, and there ought to be some provision in our laws whereby citizens who suffer humiliation, and loss of time and money through the inexcusable over-officiousness of officials can obtain some redress. If a customs officer at New York or any other port of entry of the United States stands a chance of losing his job as a direct result of his lack of civility and fair dealing in the treatment of those coming before him, there will be fewer instances like the one which forms the basis of this criticism.

At this writing several of the nations of Europe are on the verge of bankruptcy, and some of the hysterical writers in those countries are blaming the United States for all of their troubles. We are called Shylocks because we ask that money borrowed from us shall be but partly paid, and we are dubbed enemies of peace because we will not join the League of Nations and place our destinies in the hands of a lot of turbulent and warring nations that not only would make us pay the bills in a vain endeavor to preserve international law and order, but dictate our conduct in any and all controversies. They seem to have forgotten that the World War was a scrap of their own making, and we sent millions in money and a large army across the water to prevent a fate that threatened to destroy all European civilization and did succeed in partially wrecking it. At the conclusion of the war, though vitally instrumental in bringing about victory, we refused all spoils, and we aided in money and other assistance in the restoration of a semblance of commercial activity. We bore the enormous expense of our part in the war uncomplainingly, and have been magnanimous enough to wipe out a large proportion of the indebtedness of foreign countries, and now because we ask them to do something to help themselves out of difficulties of their own making we are criticised and maligned. Such base ingratitude reminds us of the story of the sick and unemployed man who through an exhibition of commendable charity and benevolence was taken into

a comfortable home, fed, clothed and nursed back to health after months of time, and who showed his gratitude by stealing his benefactor's purse and wife, and burning up the home that had been his haven of refuge. We sometimes fear that such a thing as gratitude does not exist, and that our charity and benevolence only is repaid by our own sense of right in doing that which we think is commendable for the benefit of humanity. Perhaps the doctor, more than those of any other vocation, appreciates the mockery of the word gratitude when he thinks of the abuse that has been heaped upon his head by those who by all the rules of justice and fairness should accord him most thankfulness and praise.

By some of our readers it may be thought that we are harping too much on the economic phase of the practice of medicine, but in reply we have to say that we fully recognize that the medical profession as a whole is shamefully imposed upon, and a good percentage of the members of the profession in their struggle for a living income are in contact with obstacles of their own creation. The high cost of living effects the medical man as it effects everyone else, but he does not seem to recognize the necessity of meeting these conditions by changes in business methods or practices which have existed for half a century. It is with a view to stimulating the individual physician to mend his ways and look upon his work as a means for securing a decent living and a competence for his old age, as well as being of humanitarian service, and to encourage the medical profession as a whole to create a better economic position for itself, that causes us to keep harping on the subject. In this connection we wish to call attention to one incident that indicates the condition confronting the average medical man. A well known and very busy public accountant is authority for the statement that very many people apparently in very moderate circumstances have substantial savings accounts and whenever sick, use the incident as a basis of delay in the payment of obligations and for seeking either a marked discount of the bill for medical services or perhaps donation of the entire account. He states that he positively knows of several such instances where people have secured such service and that the recipients of the leniency shown have prided themselves on their ability to secure concessions. We might add that many doctors who are waiting upon a patron for the payment of a long standing account or who perhaps have settled with that patron for considerably less than fifty cents on the dollar, have been surprised to see that same patron blossoming out with a new and expensive touring car and note that the members of the family are dolled up in the latest style in clothes. Medical men as a class never will be Shylocks in exacting the pound of flesh, but as a class they owe it to themselves to show a little backbone in adopting

business-like methods in securing just compensation for their services and as prompt payment as is secured by the merchant or anyone engaged in any other line of work.

DEATHS

W. P. MITCHELL, M.D., of Middletown, died July 2nd, aged sixty-four years. Dr. Mitchell graduated from Rush Medical College, Chicago, in 1886.

GEORGE B. BUCKINGHAM, M.D., of Brookville, aged seventy-five years, died recently. He graduated from the Kentucky School of Medicine, Louisville, in 1879.

FRANK L. STONE, M.D., of Pendleton, died July 12th, aged seventy-five years. Dr. Stone graduated from the Physio Medical College of Indiana, Indianapolis, in 1874.

FREDERICK G. GRISIER, M.D., of Columbia City, died recently, aged seventy-three years. Dr. Grisier graduated from the Western Reserve University School of Medicine, Cleveland, in 1875. He was a member of the Whitley County Medical Society, the Indiana State Medical Association and the American Medical Association.

E. T. DIPPELL, M.D., of Huntington, died July 11th, aged fifty-one years. Dr. Dippell graduated from the Jefferson Medical College of Philadelphia, Pennsylvania, in 1897. He was a member of the Huntington County Medical Society, the Indiana State Medical Association, the American Medical Association, and the Central States Pediatric Society.

DR. WILLIAM OTTO GROSS

WILLIAM OTTO GROSS, M.D., a prominent physician of Fort Wayne, Indiana, was born in Richmond, Virginia, April 19, 1861. He moved with his parents to Buffalo, New York, where he received his early education and also graduated from high school. During these years Dr. Gross earned his first money by lighting fires for the Jewish families on the Sabbath and also going from corner to corner and lighting the lamp posts. In 1880, Dr. Gross moved to Fort Wayne, where he was employed in a drug store which helped him earn enough money to take him back to Columbia University, from which he received his Ph. C. and later M. A. degree in 1885. He again returned to Fort Wayne and went into the drug business in partnership with Theodore Thieme. The following year he was married to Miss Clara Thieme. There were four children born to this union, one daughter preceding him in death. During the following years Dr. Gross attended the Fort Wayne Medical College and at

the same time taught there and in 1893 he received his M. D. degree. Upon the incorporation of the Fort Wayne Medical College with the College of Medicine of Indiana University, Dr. Gross lectured both at Indianapolis and Purdue University. For a number of years he was connected with a Fort Wayne drug company and later established the Gross Pharmacy. About this time he helped to found the Nurses' Training School of the Old Hope Hospital, and he was also the first city chemist. However, his life's ambition to practice medicine was never realized until, at the death of Dr. Carl Schilling, he took over the latter's office and practice. He soon joined the staff of the Lutheran Hospital and taught materia medica there for fifteen years, and at his death was vice-president of that institution. Dr. Gross also served on the City School Board for two consecutive terms. In 1913 Dr. Gross was one of the founders of the Wayne Pharmacal Company of Fort Wayne, and was its first and only president up to the time of his death. He was a member of the St. Paul's Lutheran Church, the Chamber of Commerce, the Optimist Club, the Allen County Medical Association, the Indiana State Medical Association and the American Medical Association. Dr. Gross died June 25, 1926, following a ten days' illness of angina pectoris.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

DR. H. R. MINNICK, who has practiced in Albany for some time, has moved his office to Mathews, Indiana.

A PHYSICIAN is needed at Holton, Indiana. There is no competition there; it is claimed that a progressive medical man could have all of the work.

THE annual meeting of the Mid-Western Association of Anesthetists will be held October 11-14, 1926, in Kansas City, Missouri, with headquarters at the Baltimore hotel.

THE Parke-Vermillion County Medical Society was entertained July 13th at the tuberculosis sanitarium at Rockville by Dr. Amos Carter, superintendent of the institution.

THE Madison County Medical Society held a meeting July 28th. Following a luncheon at the Grand Hotel, Anderson, the physicians were taken on a tour through the factory of the Remy Electric Company.

At a recent meeting of the Ninth Councilor District Medical Society, Tipton was selected as

the place for the 1927 annual meeting. Dr. H. G. Reed, of Tipton, was elected president of the society and Dr. J. V. Carter, of Tipton, was made secretary-treasurer.

THE July meeting of the Grant County Medical Society was held at the Methodist church in Swayzee, Indiana, July 28th. Papers were presented by Dr. Z. T. Hawkins, Dr. O. L. Stout, Dr. L. D. Holliday, Dr. C. R. Brown, Dr. F. W. Tavenner and Dr. E. O. Harrold.

THE next examination given by the American Board of Otolaryngology will be held in Denver, Colorado, at the University Hospital on Monday, September 13, 1926. Application should be made to the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

AT the annual meeting of the American Psychiatric Association held recently in New York, Dr. George M. Kline, of Boston, was elected president; Dr. Adolf Meyer, Baltimore, vice-president, and Dr. Earl D. Bond, Philadelphia, secretary-treasurer. The next annual meeting will be held in Cincinnati, Ohio, May, 1927.

THE twenty-seventh annual meeting of the American Therapeutic Society was held in Philadelphia, June 10th to 12th. Dr. William A. Campbell, Colorado Springs, Colorado, was elected president; Dr. Jacob Diner, New York, treasurer, and Dr. William J. Mallory, 1720 Connecticut avenue, Washington, D. C., secretary. The next annual convention will be held in Washington, D. C.

THE Indiana Tuberculosis Association is offering to the physicians of Indiana a copy of the revised edition of "Diagnostic Standards" for the diagnosis and classification of pulmonary and glandular tuberculosis. The booklet will be sent free to any physician who will write to the Executive Secretary, Indiana Tuberculosis Association, 1219 Meyer-Kiser Bank Building, Indianapolis, Indiana.

THE Inter-State Post-Graduate Assembly of North America will hold a meeting at Cleveland, Ohio, October 15th to 22nd inclusive. The Program Committee consists of Drs. George W. Crile, Cleveland, chairman; Lewellys F. Barker, Baltimore, Md.; George E. Brewer, New York; Henry A. Christian, Boston; John B. Deaver, Philadelphia; Duncan A. L. Graham, Toronto, Canada; James B. Herrick, Chicago, and Jonathan C. Meakins, Montreal, Canada. Headquarters will be at the Hotel Cleveland.

THE President's Committee of Fifty on College Hygiene, and the Metropolitan Life Insurance Company have undertaken an investigation of the

effect of college athletics on the life expectation of athletes. The study necessarily is restricted to schools which had as early as 1905, organized athletic departments, and so far the following schools are participating in the study: Yale, Princeton, Cornell, University of California, University of Michigan, University of Chicago, University of Pennsylvania and Amherst.

In addition to the articles already enumerated, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Armour & Company:

Pituitary Liquid (Surgical)-Armour.

Ampules Pituitary Liquid (Surgical)-Armour
1 cc.

Parke, Davis & Company:

Pertussis Immunogen.

Pneumococcus Immunogen.

Silvol Dougies 5 per cent.

Silvol Ointment 5 per cent.

Vaginal Suppositories Silvol 5 per cent.

Powers-Weightman-Rosengarten Company:

Calcium Phosphate Tribasic-P. W. R.

Magnesium Phosphate Tribasic—P. W. R.

Non-proprietary Articles:

Tribasic Calcium Phosphate.

Tribasic Magnesium Phosphate.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION

In order to perfect a legislative organization which will be as effective as possible, the Legislative Committee of the Indiana State Medical Association is planning a series of meetings with the members of the various county legislative committees of the various districts for July, August and September.

The first meeting of this nature was held for the Eleventh District on July 15th, at the Kokomo Country Club. It was a most successful meeting from every standpoint. Twenty-five physicians representing the seven counties of the district were present. A program of active work was laid down at the meeting in order that means might be adopted to ascertain the position of legislative candidates in matters pertaining to legislation in the interest of public health.

The purpose of these meetings is to get the medical profession in each of the districts to act in unison so that the citizens of Indiana may be protected against the many forms of quackery which continually tend to undermine the health of the community.

The Eleventh District meeting was called by C. S. Black, M. D., of Warren, district councilor, and local arrangements for the meeting were made by Dr. William I. Scott, of Kokomo, acting for the Howard County Medical Society and the Eleventh District Medical Society.

Among those present at the Eleventh District meeting were: Chas. M. Kennedy, Camden; George D. Miller, Logansport; L. C. Miller, Twelve Mile; John E. Yarling, Peru; L. M. Knepple, Kokomo; O. D. Hutto, Kokomo; R. A. Craig, Kokomo; E. J. Cripe, North Manchester; J. C. Knight, Jonesboro; C. J. Adams, Kokomo; R. P. Shuler, Kokomo; M. J. Lewis, Marion; James Wilson, Wabash; W. J. Martin, Kokomo; Paul W. Ferry, Kokomo; E. O. Harrold, Marion; William I. Scott, Kokomo; C. S. Black, Warren; J. A. Flora, Flora; J. H.

Reed, Logansport; Frank W. Cregor and Thomas A. Hendricks, Indianapolis.

The Eleventh District is unusually well organized from a legislative standpoint, having a district legislative committee composed of: C. H. Good, chairman, Huntington; C. M. Kennedy, Camden; M. J. Lewis, Marion; James Wilson, Wabash; W. J. Martin, Kokomo; Geo. D. Miller, Logansport, and H. G. Haas, Peru.

All councilors who have not yet reported the time and place of their meetings should do so immediately to headquarters office in order that arrangements may be made for their district legislative meetings.

BUREAU OF PUBLICITY

June 28, 1926.

Meeting called to order at 4:45 p. m.

Present: Wm. N. Wishard, M. D., chairman and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held June 21st were read, corrected and approved.

The publicity article upon "Sanity on the Fourth" approved for release Friday, July 2nd.

Special article by the Bureau warning Hoosier motorist against typhoid, printed in the Motor Section of the *Indianapolis News*, Saturday, June 26th, noted. The use of this article by the automobile editor of the *News* received special favorable comment from the Bureau.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole July 12, 1926.

WM. N. WISHARD, M.D.,

Chairman,

THOS. A. HENDRICKS,

Secretary.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

ISACEN.—DIACETYLDIOXYPHENYLISATIN.—The diacetyl derivative of dihydroxyphenylisatin. Isacen passes through the stomach unchanged: when it reaches the intestine, a gradual splitting off of dioxyphenylisatin takes place under the influence of the alkaline content of the intestine. The dioxyphenylisatin thus produced is stated to be non-toxic, not to be absorbed, and to be excreted entirely through the feces. Isacen acts as a laxative or purgative, depending on the dosage employed. It is supplied in the form of tablets, containing 0.005 Gm. Hoffmann-LaRoche Chemical Works, New York. (*Jour. A. M. A.*, June 5, 1926, p. 1769).

DIGITALIS DISPERT.—An extract of digitalis, obtained by extraction of digitalis leaves with cold water and evaporation of the extraction by a special process. It is standardized by the minimum lethal dose frog method of Straub so that 1 Gm. represents 1,900 lethal frog doses. Digitalis dispert has the actions and uses of digitalis. The product is marketed in the form of 0.08 Gm. tablets. Schering & Glatz, Inc., New York.

PERTUSSIS IMMUNOGEN.—A bacterial antigen obtained by agitating live pertussis bacilli with physiological solution of sodium chloride and separating the liquid from the organisms; the extract is free or nearly free from bacterial cells and toxin. There is some evidence that this material will yield approximately the same results as the ordinary pertussis bacillus vaccine (New and Non-official Remedies, 1925, p. 354). The product is marketed in 10 cc. vials. Parke, Davis & Co., Detroit.

PNEUMOCOCCUS IMMUNOGEN.—A bacterial antigen, obtained by agitating live pneumococci (Types I, II and III) with physiological solution of sodium chloride and separating the liquid from the organisms; the extract is free or nearly free from bacterial cells and toxin. There is some evidence that this material will yield approximately the same results as the ordinary pneumococcus vaccine (New and Nonofficial Remedies, 1925, p. 355).

The product is marketed in 10 cc. vials. Parke, Davis & Co., Detroit. (*Jour. A. M. A.*, June 19, 1926, p. 1911).

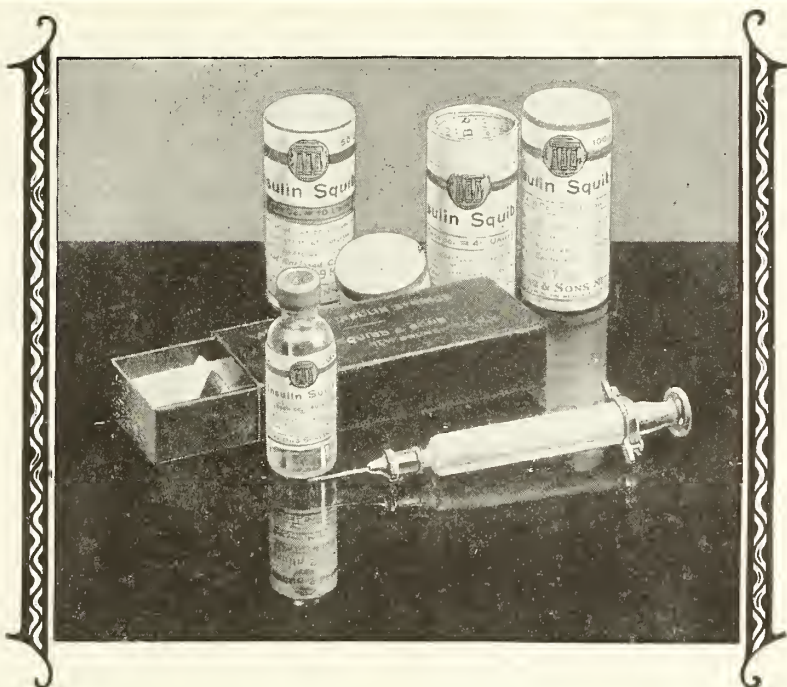
PROPAGANDA FOR REFORM

ALLONAL NOT ACCEPTED FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Allonal is a preparation containing a combination of allylisopropyl barbituric acid and amidopyrine mixed with free allylisopropylbarbituric acid and an excess of amidopyrine. The combination between allylisopropylbarbituric acid and amidopyrine is readily decomposed into its components, and the firm's claims are based on the assumption that Allonal contains these two ingredients. The claim is made that allylisopropylbarbituric acid, "the new and distinctive component," possesses a greater hypnotic power than any of the other well known hypnotics of the barbituric acid series, but that it is relatively less toxic. The Council finds that the evidence cited by the firm does not substantiate this claim, and concludes that Allonal must be considered as the result of an effort to combine in one preparation the hypnotic properties of a member of the barbituric acid series and the analgesic properties of amidopyrine. The firm publishes long lists of conditions said to have been relieved by this combination, the only individualization being the recommendation of "1 to 2 tablets" for some and of "2 to 4 tablets" for others. In none of the clinical reports submitted by the firm does the author refer to observations in which either component of the drug was used separately or in which the relative proportion was varied: the Council holds that the absence of such data deprives these reports of much of their value as arguments for the use of Allonal. The new hypnotic, allylisopropylbarbituric acid, for which great superiority is claimed, is thus made available to physicians only in fixed combination with an antipyretic and analgesic drug which may not be needed and which in itself frequently causes untoward symptoms. The Council finds Allonal unacceptable for New and Non-official Remedies because (1) the therapeutic claims advanced are deemed unwarranted by the facts; (2) the name is not descriptive of its composition, and (3) there is no satisfactory evidence that the administration of a mixture of allylisopropylbarbituric acid and amidopyrine in fixed proportion (or of a feeble chemical compound of these two that behaves in the stomach like a mixture) is rational. (*Jour. A. M. A.*, June 12, 1926, p. 1853).

LIMITATION OF COD LIVER OIL IN RICKETS.—Cod liver oil, long recognized as having antirachitic potencies, has been heralded as a veritable specific, alike for the prevention and the cure of rickets. Under the unfeigned encouragement of the medical profession, child welfare agencies everywhere have preached the doctrine of the liberal administration of cod liver oil in infancy. The public has been informed through numerous channels, including even the legitimate advertising and the sales promoting of manufacturers. In consideration of the protests against the indiscriminate administration of iodine in the prophylaxis of goiter, it may be asked to what extent the promotion of the use of cod liver oil in infancy is on a basis that is defensible from every standpoint. Is it effective? Does it involve possibilities of unsuspected harm? Is it worth while? Should it be modified in any way? Evidence is already available that the highest expectations are not consistently realized. However, the unqualified success obtained with cod liver oil under carefully controlled conditions of many clinicians should give assurance of the wisdom of its inclusion in prophylaxis. What is needed above all at present, is a better understanding of how rickets may be averted in the home as well as in the well ordered clinic. (*Jour. A. M. A.*, June 19, 1926, p. 1912).

L. M. HUNTER'S EPILEPSY CURE.—L. M. Hunter, M. D., Little Rock, Ark., sells "Dr. Hunter's Rational Treatment for Epilepsy," a crude piece of mail order quackery with the indirect aid and assistance of H. S. Brevoort, M. D., and a member of the state board of health of Arkansas, L. L. Marshal, M. D. The cure

(Continued on Adv. Page xx)



INSULIN SQUIBB

INSULIN is the active anti-diabetic principle of the Pancreas, and is the one and only anti-diabetic specific.

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TRUTH ABOUT MEDICINES

(Continued from page 326)

itself and its methods of exploitation do not differ widely in their sordid details from the average mail order quackery. A "complete course" of "Dr. Hunter's Rational Treatment for Epilepsy" was submitted to the A. M. A. Chemical Laboratory for analysis. The laboratory found the "treatment" to consist of capsules containing essentially 0.07 Gm. (approximately 1 grain) of phenobarbital (luminal) per capsule. This alleged "true specific for epilepsy" which "stops seizures from the first day used" is simply phenobarbital (luminal)—a powerful drug of distinctly habit-forming tendencies, the indiscriminate use of which is not safe. (*Jour. A. M. A.*, June 19, 1926, p. 1928).

VITAMIN B AND "VITALITY."—During the excessive enthusiasm a few years ago for the then newly discovered vitamins and the exalted hope of great physiologic accomplishment through their administration in a therapeutic or prophylactic way, these food factors—notably the vitamin B of yeast—were often expected to "pep up" the jaded person. Somehow it was assumed that the vitamin must "stimulate" one function or another. The actual investigations have, however, been disappointing in some ways. Secretion has not as yet been discovered to be stimulated or "pepped up" in any way. It has been demonstrated that deprivation of vitamin B does not of itself lower the basal metabolism, nor is the latter altered by large doses of vitamin-bearing products. So far as the basal heat production is a measure of "vitality," it has been shown that the ingestion of amounts of vitamin B in large excess over the minimum requirements for growth and continued well being does not benefit an animal.

BOOK REVIEWS

DEVELOPMENTAL ANATOMY. By Leslie B. Arey, Professor of Anatomy at the Northwestern University Medical School, Chicago. Octavo Volume of 433 Pages, with 419 Illustrations. Many in Color. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$5.50 Net.

As stated by the author, the book has been prepared for the use of medical students and others interested in embryology. The book is divided into three sections. The first is devoted to prenatal and postnatal development; the second to the origin and differentiation of the human organ systems, and the third to a laboratory manual of the study of chick and pig embryos. The book is splendidly illustrated and the subject matter treated in as concise a manner as possible in a discussion of developmental anatomy.

NUTRITION DISORDERS OF THE INFANT AND CHILD.

By Julius H. Hess, M.D., Professor and Head of the Department of Pediatrics, University of Illinois College of Medicine, Etc. Illustrated. Fourth Revised and Enlarged Edition. Cloth. F. A. Davis Company, Philadelphia, 1925.

This is a practical book. It discusses the theory of feeding and actual cases are cited to illustrate the principles and practice recommended. The requirements for the growth and development of the infant per pound of body weight independent of the size and frequency of the feedings are pointed out and diets for children up to and including the sixth year are appended. There are chapters on nutritional disorders which conform to the latest researches, and in this last edition Ceilac disease has been introduced as an added chapter.

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ORIGINAL ARTICLES

LOSS OF VISION, WITH SPECIAL REFERENCE TO INTERSTITIAL AND PHLYCTENULAR KERATITIS*

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CHICAGO

The subjects upon which I have been asked to speak cover a wide territory. But before I talk of defective vision, perhaps it would be well if we had a clear understanding of what is meant by normal vision.

From every object in the world, rays of light are given off from every point on its surface, either because it is a self-luminous object, or because it reflects rays received by it from some luminous body, the most important of which is the sun. These rays pass out in diverging straight lines until they meet another object, when they are either absorbed, reflected or pass through it, if it is transparent. If in addition to its transparency it possesses a curved surface, the direction of the rays passing through it is altered in a manner dependent upon the character of the curvature. If the surface is convex, the rays are bent towards each other, and will meet at a point behind the object whose distance from it will depend upon the degree of curvature. Such a convex transparent body is called a lens, and the point of the meeting of the rays is called its focus. This focus is not a fixed point, but is further away when the object is close, and nearer to the lens when the object is further away. However, when we speak of the focus of a lens, without any qualifications, we mean the meeting point of rays coming from a point at an infinite distance, which for practical purposes is any distance beyond twenty feet; that is, the rays are practically parallel.

If the surface of the lens is concave, the rays do not meet after passing through it, but become even more separated.

The cornea and lens of the eye together represent a convex lens, and consequently rays of light entering the eye are bent towards each other and tend to meet. If the retina, which is the part of the eye which converts rays of light into nerve

impulses of sight, lies at the focus of the cornea-lens system, every point on the illuminated object from which rays have entered the eye is reproduced as a point, and the eye is said to be emmetropic, or standard. It is incorrect to call it a normal eye, because that word denotes freedom from disease as well as from refractive errors. If the retina lies in front of the focus, the eye is called a hyperopic, hypermetropic, or far-sighted eye. If it lies behind the focus, the eye is myopic or near-sighted. The words near-sighted and far-sighted are incorrectly applied to their respective conditions, but they are so deeply rooted in our daily speech, that it is impossible to substitute more correct ones for them. In both the hyperopic and the myopic eye, a small circle is formed instead of a point, and the object is seen blurred. The problem of good vision is further complicated by the fact that the cornea-lens may not be curved the same in all directions, so that it bends or refracts rays differently in different meridians, and the rays passing through them will never meet in a point. This condition is called astigmatism.

The word refractions means the ability of a curved transparent surface to change the course of rays of light passing through it. It also means the amount of such change. But its chief use is to indicate that process through which we go in determining what lens placed in front of the eye will make parallel rays meet on the retina—in other words, testing for glasses. If the focus is in front of the retina, we must use a lens which will make it recede to the retina; if it lies behind, we must use a lens which will bring it forward sufficiently. Only after this has been done will the patient have standard vision. Usually, the eye can increase the strength of its crystalline lens by means of the action of a small muscle called the muscle of accommodation, but when the hyperopia is very high, or when the accommodation is insufficient, and in all cases of myopia, a glass is necessary to bring about perfect vision.

Eyes are refracted by placing the patient in front of a series of letters whose size decreases in a definite ratio. Each line should be read at a fixed distance—for instance, 20 feet, 40 feet, 60 feet, etc. If a patient reads the 20-foot line at 20 feet distance, we say he has a 20/20 vision, which is the standard. He should also have a 40/40,

*Read at a meeting of the Social Workers of the Michael Reese Hospital and Dispensary, and of the Winfield Sanitarium, May 5, 1926.

60/60 vision, etc. If he does not read the 20-foot line at 20 feet, he may be able to read the 60-foot line at 20 feet, and his vision is then said to be 20/60. This does not mean that he has lost two-thirds of his vision in the same sense than 20/60 of an apple means one-third of an apple. We can not reduce vision to numbers; we can only use these numbers as a convenient way of recording our findings. A vision of 20/60 means only that the patient has to come up to 20 feet to read a line that a person with standard vision is able to read at 60 feet distance. Such a person has sub-standard vision, that is, he has a loss of sight. But this loss is not necessarily permanent. If the loss is due only to an error of refraction, we can usually find a lens which will enable him to read the 20-foot line at 20 feet, that is, which brings his vision up to standard. I shall not go into the question of prescribing glasses, except to say that any person with a refractive error who does not have 20/20 vision, or who does get it with difficulty, or by straining, should wear glasses, and these glasses should be changed from time to time, as the necessity arises.

In a similar way, the vision for near objects is tested by using small type at a certain distance, and the necessity for glasses for near work is estimated. In general, emmetropes should wear glasses for near work at the age of forty, hyperopes and astigmatics at an earlier age, and myopes should or should not, depending on the amount of myopia.

In what I have said, I have assumed that the eye is free from disease, and that the loss of sight was due to an improper relation between the refraction of the cornea-lens and the position of the retina. But it is entirely possible for an eye to be emmetropic and still have a loss of sight ranging down to complete blindness. The cause of this may be a disease of the brain, or of the optic nerve anywhere from the brain to the eyeball, or of the retina or choroid, or vitreous opacities. Or there may be opacities in the lens, to which we give the name of cataract, or the cornea may be more or less opaque. It is even possible for an exudate from an inflammation of the conjunctiva to cover the cornea and cause decrease in vision, or an exudate from the iris may cover the pupil, with the same result. Whatever the cause, we estimate the vision in the same way as though the loss were due to a refractive error, and record it as 20/60, etc. If the disease is cured, the vision will increase, perhaps to standard 20/20.

This has been a long way to say that vision is dependent on two factors: (1) the refraction of the eye, and (2) its health. Either or both may be abnormal, in which case the vision will be lost to a greater or less degree, and more or less permanently. It is perfectly obvious that a disease of the eye should be treated at once, as the longer it lasts, the more danger there is of a permanent loss of sight. What is not so well understood is

the necessity for a correction of errors of refraction as early as possible. Headaches, insomnia, neurasthenia and a host of other conditions are directly traceable to the ignorance or indifference of parents or the vanity of the patient. Long continued failure to correct errors of refraction, especially if of high degree, may result in loss of sight which not even the best refraction can restore. Especially is this true when there is a decided difference in the refraction of the two eyes. The one with the greatest error tends to lose its visual ability from disuse. The patient does not appreciate the seriousness of this condition until something happens to the good eye, when it is frequently too late. It is possible, sometimes, to train the worse eye to obtain better vision by occluding the better eye for a longer or shorter time daily, but this treatment must extend over months, and the young patient must be encouraged to persist in the treatment by his parents, teachers, and sometimes the social worker. The younger the patient, and the more conscientiously this is carried out, the better the result.

It sometimes happens that one eye turns in or out, producing the condition called squint, cross eye, or strabismus. This can sometimes be corrected by the proper glasses and exercises. Sometimes, however, an operation is necessary. Here, too, the earlier the treatment is instituted the better. The cosmetic result is usually the most important feature to the patient, but the restoration of vision should be equally the aim of the physician.

To sum up what I have said—visual acuity below standard may be due to refractive error or disease of the eye, or both. In either case, it demands early investigation, accurate diagnosis and appropriate treatment. Even a high degree of loss of sight may be rectified if taken in time and subjected to the proper treatment, while slight losses, if neglected, may develop into pronounced disability.

As to the social significance of defective vision, it is evident that loss of sight constitutes a heavy handicap in the race of life. Fortunately, this is becoming lessened by the activities of the workers in this field. One form of this is special classes for myopic children. Workshops for the blind have progressed beyond broom making and piano tuning. Stenography, for example, is now a possible field for blind workers. Unfortunately, there is no way of saying what kind of work is best for a person with a certain amount of vision. So far as I know, occupation for the visually handicapped rests on an empiric basis. There is no way of knowing whether a patient can do a certain kind of work until he has tried it. Generally speaking, persons with high myopia should not do any heavy lifting, on account of the danger of detachment of the retina. Near work should be avoided by persons with high hyperopia. Persons with contracted visual fields should not drive horses or run

autos on account of danger of collisions. With this as a rough outline of limitations, more definite decision must be upon an empiric basis.

I have been asked to speak upon interstitial keratitis and phlyctenular keratitis, also, but I am going to enlarge this subject by including two other diseases of equal importance, viz., trachoma and ophthalmia neonatorum.

First as to interstitial or parenchymatous keratitis, for both names are given to it. This is a disease whose chief danger to sight lies in the fact that the cornea becomes cloudy. If the disease is neglected, this cloudiness tends to become permanent as the result of the formation of corneal opacities—that is the cornea shows larger or smaller white areas which are opaque. An insufficient amount of light enters the eye, and the rays that do enter cannot be brought to a focus on the retina by any lens, on account of the irregular corneal astigmatism. Great loss of sight is the result.

Another feature of the disease is the fact that it is usually accompanied by an iritis. The exudate formed by the latter may cover the lens to a greater or less degree, and thus interfere with the entrance of rays of light into the eye.

Although the result of this disease when untreated is always great loss of sight, to say nothing of the great pain present in its active stages, the prognosis under treatment is good. The milder cases clear up with no microscopic lesions of the cornea and no loss of sight, although a lens may be necessary for standard vision. Even the most severe cases clear up to an astonishing degree, even to practically normal vision. But for this happy result, it is necessary that the treatment be early, energetic and prolonged. If started late, if carried out in a haphazard fashion, or if stopped too soon, there will surely be loss of sight. Here is a field where the social worker can be of the greatest assistance to the doctor, in seeing that the young patient conforms to these three requirements. In passing, I may say that this disease is usually of syphilitic origin, less frequently, tubercular. In either case the family of the patient should be the object of the social worker's solicitude.

Phlyctenular keratitis is a condition characterized by the formation of small vesicles on the cornea. If neglected, these develop into ulcers, whose healing leaves behind opacities of the cornea. An opacity of the cornea, whatever the cause, always causes a greater or less loss of sight. This disease, if seen early and treated properly, practically always results in a cure without any loss of sight. Therefore, in this disease, also, early, energetic and continued treatment is necessary. While the exact etiology is still in dispute, we know that it affects chiefly children, especially those subject to malnutrition and unhygienic conditions, and in these latter, ulcers and corneal opacities are specially prone to develop. In this

country, at least in my clinics, we rarely see the more severe cases, as the children are brought for treatment early, but only the other day I saw a colored boy with an opacity covering a large part of the cornea, which was the result of a phlyctenular keratitis that had been neglected or improperly treated. And in passing, I may say that the colored race is especially susceptible to this disease and the course is usually more protracted. While usually a disease of children up to about thirteen to fourteen, I have seen it in older ones, and even in adults. It is the province of the social worker to investigate the home conditions of all phlyctenular patients and make suggestions tending towards the correction of unhygienic conditions.

Up to not so many years ago, the main source of blindness was the disease known as ophthalmia neonatorum, or babies' sore eyes. Due to prophylactic measures at the time of delivery, and proper treatment if the disease appears in spite of this, or when it has not been used, this disease as the cause of blindness is approaching the vanishing point. However, an important point to remember is that the child's eyes may become infected after birth, from the contaminated hands of the mother or nurse. The social worker can be of the greatest service by urging the parents to have the child treated the moment even the slight discharge from the eyes is noticed. It may be only a mild, non-specific infection, but an excess of care will yield rich dividends in retained sight.

Trachoma, or granulated lids, is found everywhere, but certain countries, or areas of countries, furnish the great majority of cases. There are certain areas of our own country where the disease affects a large proportion of the population, and there would be many more cases scattered over the country if it were not for the rigid system of examination of immigrants. Large cities furnish a large number of cases, and there are undoubtedly many cases in Chicago, but for some reason my clinic is singularly free from them. We do not average one new case in three months, which is remarkable considering our large clientele. As our case is undoubtedly the exception, it is well for you to be on the lookout for the disease, since a large proportion of blindness is due to trachoma, and since early treatment furnishes the surest protection against loss of sight. The chief contribution to blindness results from the fact that the later stages of the disease are accompanied by the formation of scar tissue in the lids, whose contraction causes the lids and eyelashes to turn inwards against the cornea. The constant rubbing of the lashes causes the formation of opacities of the cornea, and these are also formed by ulcers which develop. Other lesions also appear, which I will not stop to describe.

In this disease, as I have said, early treatment is a prime requisite. To this must be added that it be long continued and energetic, for it is a disease where relapses are frequent, and where end

results without treatment are disastrous. Under treatment, most of its untoward effects are aborted.

Summarizing what I have said—loss of sight may be due to a need for glasses, or it may be due to a disease affecting the cornea, lens, iris, vitreous, choroid, retina or optic nerve, anywhere from its origin in the eyeball to its termination in the brain. The amount of vision present is expressed by a fraction whose numerator is the distance at which the patient is reading the letters, and whose denominator is the distance at which a person with standard vision should read the smallest letters read by the patient. When glasses are needed, they should be prescribed at once. Nothing is gained by delay, and much comfort and vision is sacrificed. The loss of vision due to a disease of the eye depends largely on whether or not it is treated early, energetically and for a sufficiently long time. A large proportion of blindness is due to diseases of the cornea, among which are interstitial keratitis, trachoma, phlyctenular keratitis and ophthalmia neonatorum. However, any discharging eye is a potentially blind eye, and should be treated as soon as possible after the appearance of the discharge.

CHRONIC COLITIS VERSUS CHRONIC CHOLECYSTITIS*

GEORGE A. COLLETT, M.D.
CRAWFORDSVILLE

We all are familiar with the patient who has suffered for a long time with indefinite abdominal symptoms upon which we have been unable to pin a definite diagnosis and which finally comes to operation with a preoperative diagnosis of chronic cholecystitis or chronic appendicitis. On opening the abdomen we are confronted with an apparently normal gall-bladder and an innocent looking appendix. We feel rather doubtful but we go ahead and remove the gall-bladder and amputate the appendix. After the patient leaves the hospital we are often surprised to find she feels considerably better and we congratulate ourselves and forget about her until within a few weeks or months our patient shows up again with the same old pain.

REPORT OF CASES

Case No. 1. Mrs. H., forty, two children, complains of:

1. Epigastric distress which is present most of the time.
2. Belching, (mostly self-induced).
3. Constant weariness.
4. Constipation.

This distress, which is often a real pain, usually becomes more pronounced soon after eating. It does not radiate but she is more or less tender over the entire abdomen. At times this tenderness is limited to one quadrant only. She feels

better when she lies down. Heat to the abdomen often gives relief.

Constipation has been present for years. She takes frequent laxatives, changing the brand often and increasing the dose. On questioning, she recalls the fact that her stools when formed are about the caliber of a lead pencil, that they are usually passed in small pieces or they may be marble-like. Her appetite is good and she has lost no weight.



FIG. 1
Note caliber of descending colon due to spasm.

The gall-bladder and appendix were removed three years ago. She improved for a time but the old pain and distress soon returned. She was then told that she had developed adhesions and another operation was recommended. This did not appeal to her and so she has gone on, sometimes better, sometimes worse for the past three years.

Physical examination is generally negative except for tenderness in the epigastrium and left lower quadrant in which areas the colon is palpable. The stool submitted is partly formed, small in caliber with some mucous and free starch present. There is no blood. The x-ray reveals a normal stomach but a markedly spastic colon. (See figure No. 1).

A diagnosis was made of a spastic colitis. She was put to bed, given a very bland diet, tincture of belladonna, the cathartics stopped and in a few weeks she felt like a new woman. Three years ago she had improved for a time following operation. The prolonged rest in bed, a period of starvation, the gradual increase of a bland diet and the substitution of low enemas for cathartics had just about produced a cure. Afterwards unguided, she began the same old regime, frequent

*Read before the annual meeting of the Ninth Councilor District of the Indiana State Medical Association, May 20, 1926, at Frankfort, Indiana.

laxatives, rough foods and the old distress returned. This history is nothing unusual for on the gastro-intestinal service of a large hospital with which I am familiar it is the rule rather than the exception to admit patients with a history of previous operations which resulted in no lasting benefit.

Case No. 2—A patient seen recently had had a gastro-enterostomy for a duodenal ulcer. There was a recurrence of symptoms and a gastric resection was done but he still had pain. On examination his colon felt like a piece of hemp rope. He



FIG. 2
This apparent defect is due to a spasm.

had been taking a physic every night and on fluoroscopy his colon appeared as in the illustration. (See figure No. 2). He may have other pathology but he certainly has a spastic bowel which so clouds the picture that any other trouble is mighty hard to dig out. At any rate after a week on bowel management he has been free from pain for the first time in months.

Case No. 3—A physician past sixty has had an upper abdominal distress off and on for many years. He has taken a cathartic every few days for years and he states that he can hardly remember when last he had a formed stool. On fluoroscopy his stomach is very high, empties well but the pylorus is drawn over to the right and fixed. There is no filling defect. He may have a chronic cholecystitis with adhesion but there is enough pathology in his bowel to account for all his trouble and my idea is that where the pathology is the most evident, that is the place to start. He is now having formed stools and he is free from distress. If while on a careful diet he should apparently without reason have another upset one

would be perfectly justified in making a diagnosis of gall-bladder disease.

Case No. 4—Figure 3 is the radiogram of the colon of a young woman who had an appendectomy a year ago for an old abdominal distress which recurred shortly after operation. Like the other cases she also took a daily laxative. The pain had been so high in the left quadrant that pleural pathology had been suspected until fluoroscopy revealed the spasticity in this high splenic flexure. With a bland diet and cessation of cathartics she is free from pain.

The abuse of cathartics is appalling. Advertisements of bran, whole wheat and so-called "Nature Foods" stare at us from the pages of our best magazines. People in sedentary occupations requiring a large expenditure of nervous energy are especially liable to gastro-intestinal derangements. Give this type of person frequent cathartics, bran and excessive amounts of raw fruits and they very soon develop a condition which requires very careful management to relieve and ten to one some one will operate him at some stage of his career unless he is fortunate enough to have a family physician who understands the situation.

Excellent symptomatic results have been reported from cases where the gall-bladder has been removed but in which no pathology could be demonstrated. There either is pathology, which with our present methods we are unable to detect, or there are other factors in the case which have not



FIG. 3
Note high splenic flexure with spastic areas.

been properly evaluated. My small experience leads me to believe that a larger percentage of obscure conditions have their origin in a badly abused bowel, than in the gall-bladder. The two conditions are undoubtedly often associated and

it is here that a knowledge of the normal physiology of the gastro-intestinal tract is necessary for a differential diagnosis.

If the stools are regularly formed, of good caliber, alkaline in reaction and free from blood and if there are no filling defects nor diverticula nor parasites we can safely rule the pathology from the bowel. We can then turn our attention to the study of the gall-bladder and other abdominal organs.

On the other hand if we do find a chronic colitis which does not respond to an intelligent bowel management we have a right to suspect another source as the etiology and most probably the gall-bladder or a diseased appendix.

CONCLUSIONS

1. Obscure abdominal symptoms are frequently due to a chronic spastic colitis rather than to a cholecystitis.

2. The diagnosis is to be made from a history of the frequent use of cathartics, the character of the stools, and fluoroscopy of the colon.

3. Operative procedure in the above conditions without a careful trial of medical management is unwarranted.

EXTRAUTERINE PREGNANCY

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INDIANAPOLIS

Extrauterine pregnancy is a very interesting phenomenon. Much has been learned concerning it since the comparatively recent advent of modern surgery. Many volumes of literature have been written in recent years concerning its various aspects, and numerous interesting cases have been reported. It is a rather frequent condition, occurring in approximately three per cent of all gynecological laparotomies in our experience.

It is the purpose of this paper to review very briefly some of these discussions of extrauterine pregnancy and to classify and briefly summarize forty-eight cases of this nature observed during my residence at the Indianapolis City Hospital. I will not attempt to report each of these cases, but will try to summarize our observations and classify these cases in groups. Each of these cases is interesting and each presents an interesting problem in itself, but considering them in groups, we discover some very interesting facts in connection with the study of extrauterine pregnancies, and they are presented in that manner.

Definition—Extrauterine pregnancy is a term applied to every condition in which nodulation and growth of the impregnated ovum takes place outside of the uterine cavity. The term ectopic includes only those occurring in the Fallopian tubes, and, therefore, includes practically all extrauterine pregnancies. It does not include primary ovarian or abdominal pregnancies, none of which varieties are included in the group, and which are very rare.

History—Extrauterine pregnancy from the

standpoint of etiology, pathology and operative treatment, has evoked so much discussion in recent years that little attention has been given to its historical aspect. Many modern surgeons think that this form of pregnancy was unknown to their more ancient predecessors. A review of the medical literature of the past four centuries reveals many clear descriptions of well recognized cases of extrauterine pregnancy.

Extrauterine pregnancy was first mentioned in the tenth century by Abulcasis. In 1626, Riolan refers to several cases. Isaac Spach, in his gynecological works published in 1597, reports a case of a calcified, mummified fetus found in the abdomen of a woman after death.

In 1669, an important discussion was called forth by the case of Benedict Vassal, a surgeon in Italy. The case was that of a woman in whose abdomen after death, a small fetus 6.5 cm. long and a great quantity of coagulated blood, were found. A learned discussion then arose as to whether the pregnancy had occurred in the tube with a subsequent tubal abortion, or in a hernia of the uterus which had ruptured later. No satisfactory conclusions or explanations were made, but one must be impressed by the learned discussion in differentiating tubal pregnancies from similar conditions, taking place 245 years ago.

In 1714, Bianchi constructed an elaborate classification of the forms of extrauterine pregnancy. This was simplified by Bochmer, in 1732, who described three forms, "Gestatio Ovarica," "Gestatio Tubaria," and "Gestatio Abdominalis." In 1801, Schmidt described the interstitial form of ectopic gestation, and with this addition, Bochmer's classification must be practically accepted even at the present day.

Prior to 1876, extrauterine pregnancy was considered exceedingly rare, and Parry was able to collect only 500 instances from the entire literature. It is only with the gradual development of abdominal surgery that its relative frequency became recognized, and it is now encountered in several percent of all gynecological laparotomies.

In searching the literature, many interesting cases are encountered. Twelve cases have been reported in which the fetus was discharged through the bowels. Repeated extrauterine pregnancies after months or years are not uncommon, occurring in the same or opposite tubes. Hendler reports a case recurring in the stump of a tube amputated two months previously for tubal pregnancy.

Combined extrauterine and intrauterine pregnancies are not so very rare. Tubal pregnancy occurs rarely as a bilateral affection. Cases of double pregnancy in one tube have been reported. Also twins and even triplets have been found in one sac in one tube.

Etiology—Concerning the cause of this anomalous form of pregnancy, no entirely satisfactory conclusions have yet been reached, although there

are many theories. One great difficulty lies in the fact that it has not been yet definitely determined at what point in the female genital tract normal impregnation of the ovum takes place, and until this question is settled, the primary question, whether extrauterine fetation is an abnormal ectopic implantation or is a detained impregnated ovum, must remain unanswered. Most observers believe that the seat of coalescence of the male and the female elements is normally in the Fallopian tube. If this is true, it can readily be seen how a variety of causes might operate to detain the ovum in the tube, where it may continue an extrauterine development.

Gynecologists give many causes for extrauterine pregnancy. Chiefly among these is a previous pelvic inflammatory condition, mainly due to gonorrhea. This inflammatory condition may cause a destruction, or loss of mobility of the cilia of the tube or obstruction to the passage way of the tube by glueing the mucous membranes together, causing kinks, adhesions or blind pouches within the tube. Pressure from without, such as adhesions, tumors, etc., may act similarly. The persistence of the long narrow fetal type of tube is given by Freund, as a prominent cause. All of these conditions, by decreasing the lumen of the tube at some point or by decreasing the motility of the tube, theoretically hinder the ovum in its normal journey through the tube.

Sippel believes that the ovum in these cases enters the tube opposite the ovary, from which it was discharged and that it becomes implanted in the tube, because in its abnormally long journey through the abdomen it either becomes so enlarged that it cannot pass through the tube or that the trophoblastic action of the lining endothelium is developed sufficiently to implant the ovum in the tube before reaching the usual site of implantation. He reports several cases in which the corpus luteum was found in the ovary opposite the impregnated tube.

A few observers consider that attempts to prevent conception within a few days following the intercourse cause a spasticity of the uterine musculature and hence prevent the passage of the ovum into the uterus. They support this argument by the fact that a large per cent of ectopic pregnancies occur in unmarried women. It is questionable if this last observation is universal. Only five of these forty-eight cases were unmarried.

The etiological factors are not easily determined in these forty-eight cases. Nine cases were primipara, four of whom may have had a gonorrheal infection judging from the history, but in only one was there definite history of such infection. In sixteen of the forty-eight cases the last pregnancy had terminated with a miscarriage; fourteen cases had had a period of sterility longer than three years.

Only two of this total group gave a definite

history of gonorrhea, although six were questionable, from their history. In fact, after reviewing many case reports along with these I doubt if gonorrhea plays such an important part as a causative agent in these cases as is usually thought. When gonorrhea ascends into the Fallopian tubes, it more often causes complete sterility rather than a condition accountable for this anomalous form of pregnancy.

After a rather careful study of the literature along with a review of these cases, one must conclude that the etiological factor in most cases is yet undetermined, although any one of the many etiological factors enumerated may function in producing this abnormal implantation. One outstanding fact is the large number of miscarriages or pathological deliveries with complications that occurred at the pregnancy previous to the ectopic gestation, and it seems that just such minor pathological conditions, that do not cause complete sterility, rather than gonorrhea, are in a large measure responsible for these unusual implantations of the delayed ovum.

A previous period of long sterility was not an outstanding feature in these cases as is usually mentioned. Only fourteen cases had a period of sterility longer than three years, while the twenty-five remaining multipara had had a pregnancy less than three years before.

Varieties—Extrauterine pregnancies are classified according to the site at which the impregnated ovum is implanted. These are considered primary forms if the impregnated ovum retains its original site of implantation, or secondary forms, if the site of implantation is transferred by some alteration during the development, such as rupture of the tube.

The primary forms are divided into tubal and ovarian. Primary abdominal pregnancies have been considered a third form, but as yet too few observations have been made to prove the possibility of this as a primary form of extrauterine pregnancy. However, the case of Schlehtendahl is difficult to explain upon any other hypothesis. In this case a fetus measuring fifteen cm. in length was found attached to the abdominal wall near the spleen of a woman who had died of hemorrhage. The gestation sac was surrounded by adherent intestines and the uterus and appendages were intact and normal.

Abdominal implantations are not rare, but until further evidence of primary abdominal pregnancy is secured, they must be considered as secondary implantations following a tubal abortion or some other accident in the course of development of the pregnancy.

Primary ovarian implantations are also very rare. Spiegelberg, in 1878, formulated certain criteria which he held must be fulfilled in order to justify such a diagnosis. He demanded:

1. That the tube on the affected side be intact.

2. That fetal sac occupies the position of the ovaries.
3. That it be connected with the uterus by the ovarian ligament.
4. That definite ovarian tissues be found in the wall.

Williams, in 1906, made an extensive study of the literature and collected thirteen cases of undoubted primary ovarian pregnancy. Since that time many more positive cases have been described. The above criteria would undoubtedly exclude secondary ovarian implantations from this list.

Practically tubal pregnancies are the only primary forms. These are divided into ampullar, isthmal, tubo-ovarian and interstitial according to the portion of the tube in which they occur. According to various authors, in approximately three-fourths of the cases the ovum develops in the ampullary portion of the tube and with about equal frequency in the interstitial and fimbriated portions. It is seen, then, that the majority occur in the outer portion of the tube which is a fortunate fact inasmuch as these more often terminate by tubal abortion with less intra-abdominal hemorrhage, than the ones in the uterine and of the tube which may terminate by rupture and rapidly fatal hemorrhage.

These primary tubal pregnancies may be transferred by tubal rupture or abortion to various neighboring sites, such as into the abdominal cavity, between the leaves of the broad ligament or interstitial pregnancies may even terminate by abortion into the uterus.

Primary tubal pregnancies have been reported that went to term without rupture. The usual result, however, is a tubal abortion or rupture from the sixth to the fourteenth week of the pregnancy, most often in the second month. The fetus may then continue to grow with a secondary implantation, or the pregnancy may thus be terminated and the products of the conception disintegrated.

These forty-eight cases I am reporting all were primarily tubal pregnancies occurring in the ampullar or fimbriated portions of the tube and may be classified according to their methods of termination into three groups, which represent very well the vast majority of tubal pregnancies in symptomatology and pathology.

Group I. Tubal rupture with profuse intra-abdominal hemorrhage necessitating immediate operation to save the life of the patient. (Eight cases).

Group II. Intra-abdominal tubal rupture or abortion with moderate hemorrhage and hematocoele formation beginning in the second or third month of pregnancy, but not recognized and treated as such until one to six weeks later. (Thirty-five cases).

Group III. Primary tubal pregnancies with secondary abdominal implantations following tubal rupture or abortion, five cases, four cases

going to term, two of which went six weeks past term—cases of "missed labor."

The eight cases I have placed in Group I presented the classical picture of a ruptured ectopic pregnancy with all the signs and symptoms of profuse intra-abdominal hemorrhage and shock with a fast, thready, weak pulse of 140 to 160 in rate, subnormal temperature and apparent anemia.

In six of these cases the patients had shown no symptoms of extrauterine pregnancy except a missed menstrual period until from four to nine hours previous to operation, when their symptoms began suddenly with a sharp pain in the abdomen followed by collapse. At operation, the patient was in collapse with active bleeding still present from the tube, but all recovered following the operation. Intravenous saline solutions and blood transfusions were given in all cases following the operation. The other two cases that have been included in this group had had symptoms of acute rupture of the tube. One case came to operation twenty hours following the acute rupture in a condition of extreme shock. At operation, there was an enormous quantity of blood in the abdomen without active hemorrhage from the tube. This patient died within six hours of operation. The second case was operated within twelve hours of the acute rupture, had an enormous amount of blood in the abdomen, but no active hemorrhage. She was in extreme shock but recovered.

These cases present no difficulties in diagnosis, but there is some question concerning the proper time to operate. Some gynecologists prefer to treat these cases expectantly rather than to operate at once, saying that very few, if any, will bleed fatally. I personally have seen no cases that bled fatally, if they were not laparotomized, and I am quite sure the last two cases had better waited until the collapse had somewhat subsided, inasmuch as the hemorrhage had stopped before operation. The one death might have been avoided had the abdomen not been opened when the patient's resistance was at its lowest ebb, due to the loss of blood.

On the other hand, the first six cases mentioned, who were operated within the first nine hours after rupture, were in extreme collapse and there was still active hemorrhage at operation. We feel that these might have bled fatally internally if not operated, for cases have been operated that did so, although I have not seen such a case.

We are not able to state what would have resulted had these cases not been operated as an emergency, but we are inclined to believe from statistics that we can gather, that they should be operated as emergencies.

The operation should be quickly done under local or light gas anesthesia, ligating and excising the bleeding tube and closing the abdomen without drainage, leaving the fresh blood to be absorbed as an auto-infusion of blood. We have also left

an additional amount of warm normal saline solution in the abdomen to be absorbed.

One patient in this group presented a very unusual condition, and for that reason I mention the case more in detail. Mrs. B. L., age twenty-eight, a white, married woman, entered the City Hospital, October 9, 1925, in a condition of collapse following an acute abdominal pain in the lower right quadrant of the abdomen eight hours previously. The patient had menstruated seven weeks previously, but had missed the last menstrual period. She had been married several years, but had never been pregnant. She had never had any symptoms that might be interpreted as those due to gonorrheal disease of the pelvis. Her menstrual history was essentially negative, except that she had missed one period. Her trouble began with a sudden, severe, knife-like pain in the lower right quadrant while at work, following which the symptoms of collapse developed, until eight hours later, when her pulse was 140, thready and weak, temperature 97, blanched lips, tender abdomen, and all the other typical symptoms of ruptured ectopic pregnancy in the eighth week.

An emergency laparotomy was performed by Dr. Habich, visiting surgeon, and the abdomen was found to be filled with blood. An examination of the pelvic organs revealed a peculiar situation. The uterus was of about normal size or slightly enlarged. The left tube and ovary were normal but the right tube and ovary were apparently missing. A search throughout the abdomen revealed no other source of hemorrhage, and a more careful search revealed the ovary and a small portion of the fimbriated end of the Fallopian tube attached to the abdominal wall in the region of the mesoappendix. In the Fallopian tube was a tubal pregnancy that had ruptured. This anomalous form of tube was connected by a very slight thread-like band to the uterus near the cervix on the right side. In its course, this small band ran deep into the pelvis with the fold of the dwarfed broad ligament for a course of approximately six inches. A small section of this band was removed and was found to contain no lumen or epithelium after microscopic examination. It was therefore evident that the Fallopian tube on the right side had no connection with the uterus. As far as could be determined, the corpus luteum was on the right side; therefore, spermatazoa must have entered the abdomen through the Fallopian tube on the left side and fertilized the ovum of the right ovary which then became implanted in the small right anomalous Fallopian tube. It is a well known fact that spermatozoa are found in large numbers in the pelves of women following cohabitation, and this pregnancy is thus explained. Likewise, it is quite easy to explain why the pregnancy may develop in the Fallopian tube when one tube is patent and permits the spermatozoa to enter the abdomen, while the other

tube is not patent, due to disease and the fertilized ovum becomes delayed after beginning its migration through this tube toward the uterus. This condition may probably explain a large number of ectopic pregnancies. In this case, the right tube and ovary were removed and the patient made an uneventful recovery after the usual post-operative treatment.

This, to me, is a very instructive case. It presented an unusual anomaly of the Fallopian tube with an ectopic pregnancy in it, which is a very rare condition. It furthermore impressed the point that vital organs may be rudimentary or in peculiar locations, but they are seldom absent.

The second group of cases are less easily diagnosed and include the majority of cases of extrauterine pregnancy. There were thirty-five cases included in this group in which the tubal pregnancy terminated by gradual tubal rupture or tubal abortion. The amount of intra-abdominal bleeding was slight extending over a period of weeks varying with the pathology taking place in the pelvis. These cases came to the hospital one to seven weeks after the initial tubal rupture or abortion, complaining not of the symptoms due to the loss of blood, but of the pain occasioned by the blood in the peritoneal cavity. There are many of this type of tubal pregnancy that occur and the woman recovers without operation, without the true condition being suspected. This is evidenced by the fact that often at later dates the products of conception are found in the abdomen.

Only three of these cases were diagnosed as such before admittance to the hospital and scarcely more than fifty per cent before operation. Five cases were referred to the hospital as infected fibroids; two as subacute appendicitis; two were treated as a uterine miscarriage with curettage; another was considered a case of cholelithiasis coincident with pregnancy; six were thought to be threatened miscarriages and the remaining were considered pelvic inflammatory disease, pyosalpinx or ovarian cysts. These errors testify that these cases are not easily diagnosed. A carefully taken history and a cautious physical examination are necessary to differentiate this from other abdominal conditions; a well taken history is the most important factor in establishing a diagnosis.

A clear understanding of the pathological changes that are taking place in the pelvis at this time aids in interpreting the symptoms and signs as obtained. As the impregnated ovum enlarges the tube can no longer accommodate itself to the increase in size. Then it is that a small rupture occurs, a small amount of blood is lost and clots, stopping the bleeding. The enlargement of the ovum continues, another small rupture occurs and more blood is lost pushing the older clot in front of it. This continues until the pregnancy is naturally or artificially interrupted.

Coincident with and dependent upon these pathological changes the symptoms occur. These

symptoms are not the classical symptoms of acute intra-abdominal hemorrhage that threatens the life of the patient. Furthermore, their initial symptoms often are so slight that they do not summon medical aid at that time, but only later as the formation of the hematocele in the pelvis continues. Then the symptoms must be reviewed carefully to establish a correct diagnosis; even then I doubt if more than seventy-five per cent can be correctly diagnosed before operation.

A brief summary of the most common symptoms and signs in these cases is interesting.

I. Only six realized that they were pregnant, five stating that it was impossible for them to be pregnant inasmuch as they were not married. The only symptoms of pregnancy in the majority of them was the missed menstrual period, which they attributed to some other things. Approximately twenty-five per cent did not miss their regular menstrual period. Many writers state that symptoms of pregnancy in case of extrauterine pregnancy are not as constant as in case of intrauterine implantation. This is quite evident in these cases. The missing of the first menstrual period was less constant although our findings do not agree with one writer who states that forty-five per cent do not miss their first menstrual period in cases of extrauterine implantation. Our percentage was approximately twenty-five.

II. The initial symptom began while the patient was on her feet with a sharp pain at a definite time. This usually was accompanied by a fainty or sick feeling. Occasionally the patient fainted.

III. They had subsequent similar attacks followed in a short while by slight vaginal bleeding, the shedding of decidual membranes as in case of an intrauterine abortion. A definite diagnosis cannot be made by finding the decidual cells in the vaginal discharge microscopically, however, inasmuch as some other types of pelvic pathology give similar cells, that cannot be differentiated.

IV. The presence of blood in the peritoneal cavity occasioned a temperature of 99.5 to 100.5 degrees with an average white blood count of approximately 15,000.

V. There was an apparent anemia due to the continued loss of red blood cells. The hemaglobin was usually decreased and the pulse rate elevated slightly more than the temperature, approximately 110.

VI. There was marked generalized tenderness of the abdomen, often with distension and only slight rigidity. Pain along the costal margins was quite often present, due to blood in the peritoneal cavity, and occasioned a diagnosis of cholelithiasis in one case.

VII. There was distinct vaginal tenderness and usually painful urination and defecation.

VIII. There was usually slight jaundice due to the absorption of blood. The bluish discolora-

tion of the umbilicus that has been described was not noted as a sign in these cases.

With the above symptoms and the presence of a suspiciously softened cervix uteri, a slightly enlarged fundus uteri, and a boggy mass filling the pelvis and obscuring the other pelvic markings, we must be very suspicious of extrauterine pregnancy of this type.

We have tried the Phloridizin test for pregnancy in order to establish a diagnosis, but this and similar tests have not proven valuable. We deem it wise in case of doubt to wait, but in the presence of an extrauterine mass without temperature it is better to consider the case a surgical one, even though the exact pathology is in doubt.

The treatment of these cases varies somewhat with the general condition of the patient. In cases with a low hemaglobin we have given them one, two or three blood transfusions with absolute rest in bed to make them better operative risks. Others have been operated with very little of such preliminary treatment when their condition warranted it.

The operative procedure in these cases is usually more extensive than in the first group. The hematocele is removed and often the opposite tube and ovary with the fundus of the uterus is removed along with the affected tube. This should be done, of course, only if these organs are diseased. Drainage is not necessary in these cases. The remaining clots will be absorbed and to drain only invites infection and increases the morbidity delaying the convalescence. In this group of thirty-five cases, there were two fatalities, one due to pneumonia twenty-one days after operation and the other due to peritonitis five days following operation. The post-operative care is the same as other post-operative cases.

Cases falling in Group III. are rather rare and we feel fortunate in having seen five such cases. These are cases in which the pregnancy began in the Fallopian tube, but the site of the pregnancy was transferred by tubal rupture or abortion to another site, with the pregnancy continuing as an abdominal pregnancy. Inasmuch as these are very unusual cases we will report each of them briefly.

Case I. Mrs. H., white, age thirty-two, married, was first admitted to City Hospital, October 8, 1919, as a miscarriage. She had missed one menstrual period and at the time for her subsequent menstrual period she had abdominal cramping pains, with uterine bleeding. She came to the City Hospital in this condition. She was put to bed with ice to abdomen and she left in eight days in good condition. The case was considered one of abortion completed before admittance.

Two months later she was re-admitted to the hospital with a tumor in the abdomen causing some pain and constipation. She had had no symptoms of pregnancy, except missed menstrual flow. Laparotomy revealed a well implanted four

or five months' abdominal pregnancy, with the placenta attached to the right enlarged and slightly ruptured tube, ovary and posterior abdominal wall with a few adhesions to the intestines. The fetal sac and placenta were removed and the patient made an uneventful recovery.

We consider in this case that tubal rupture occurred in the seventh week of the pregnancy just previous to first admittance to hospital, at which time an incorrect diagnosis was made. This case would probably have gone to term, if it had not been interrupted at this time.

Case II. Mrs. A., was admitted to the City Hospital, August 10, 1920, with severe pain in abdomen, diagnosed as a primipara at term. Patient twenty-five years, white, was married on August 19, 1919, and menstruated normally until November 8, 1919, nine months previous to admission, which was her last normal menstruation. She gave no history of gonorrhea or pelvic disturbances of any kind.

Since her last menstruation, the abdomen had progressively enlarged with development of breasts, morning sickness for first four months, and other symptoms of pregnancy. During the early months of her pregnancy the patient had suffered occasional severe pain in the right side of abdomen, but this was thought to be due to indigestion because she was very constipated. She first felt the movements of the baby April 1st, (approximately four and one-half months after last menstrual period), and since then complained of the violent kicking of the baby and aching through the back. She said she would even feel the various parts of the baby. She had no vaginal bleeding during pregnancy. She lost about fifteen pounds weight during this time.

Physical Examination—Case was considered a normal intrauterine pregnancy at term. Patient had lost some weight and had a few fine crepitant rales in the base of each lung. Heart sounds normal. Blood pressure 120 systolic and 80 diastolic. The urine showed no albumen or casts. Pelvic measurements were normal.

External examinations revealed the fetus very superficial and in transverse position, which was confirmed by x-ray.

Subsequent course: Patient was complaining of severe pains in abdomen which soon disappeared when patient was put to bed. She was then allowed about the ward as expectant mother, until September 5th, when she was seized by a sudden acute pain in the left lower part of abdomen and vomited. The pains were rather indefinite and not at all true labor pains. An external version was unsuccessfully attempted and a vaginal examination revealed no dilatation of the cervix. The labor progressed very unsatisfactorily and the very severe pains of an indefinite character were considered indication for abdominal cesarean section which was done shortly. A full term extrauterine pregnancy was found with the amniotic

sac ruptured, which had probably occurred one hour previous to operation and was the cause of the very severe pain. The placenta was attached to the right tube and ovary, the posterior surface of the right broad ligament, and the right horn of the uterus. The uterus was very little enlarged. The placenta was also attached to the left broad ligament and to a very small portion of the greater omentum.

An eight-pound baby was removed from the abdomen which was well developed in every way except for a malformation and flattening on one side of the skull due to pressure of the sacral prominence. The baby cried huskily for a time, but died one hour after birth. The abdomen was mechanically cleansed and placenta removed, bleeding controlled and abdomen closed without drainage.

A transfusion was given within twelve hours and the patient made an uneventful recovery. Since that time the health of the patient has been only fair. She has a chronic cough.

Case III. Mrs. D., admitted to City Hospital, April 29, 1921, as a case of pregnancy at term, complaining of generalized abdominal tenderness, especially upon pressure.

Patient, colored, twenty-eight years of age, who was married five years ago, has had two full term normal pregnancies with two living children, ages three years, and fifteen months respectively. Menstruation always normal and regular; no history of gonorrhea or pelvic infection. Patient's last normal menstruation was June 13, 1920, nine months previous to admission. Since then in August, while at Nashville, Tenn., she was ill and vomited. She was cared for at the Hubbard Hospital for fourteen weeks and a tumor was found on her right side, the nature of which was not determined as she was not operated. In January, an x-ray picture disclosed a fetus. In February the abdomen began to enlarge and breasts became larger. After this the patient complained of pain and tenderness in the abdomen and she could not work. She came to Indianapolis one week previous to admittance to hospital. She was admitted, complaining of extreme pain in abdomen without any labor pains.

Physical examination revealed a medium-sized colored woman with abdomen the size of a full term pregnancy. The abdomen was very tender, but fetal parts did not seem very superficial. External examination revealed the head in right lower quadrant, which would not engage because there was a small mass in lower left quadrant pushing head up from pelvis.

A vaginal examination revealed the cervix rather hard and admitting only one finger easily. A partition about one-half inch wide in thickness separated the head from the finger in cervix. The nature of the mass to left of head could not be ascertained. An x-ray picture revealed baby in position described. Fetal heart sounds were very

rapid. Cesarean section was advised and done within six hours after patient was admitted to hospital. A baby weighing eight pounds was delivered from between the folds of the broad ligaments of the right side. The placenta was removed and bleeding controlled as well as possible, although the patient lost considerable blood. The folds of the broad ligament were then stitched together and the abdomen closed. The small uterus was the mass to the left of the head, and the wall of the uterus was the separating partition. The baby was well formed, but died of atelectasis in one hour. The mother died in a short time also, due to loss of blood. A post-mortem examination enabled us to study the pathology carefully. The pregnancy was extrauterine and extraperitoneal. As it developed the round ligament, ovarian ligament, ovary and Fallopian tube of that side was so flattened out in the stretching process that they were scarcely recognizable. The fetal sac had dissected its way beneath the peritoneum into the lower position of the abdomen and deep into the pelvis. The placenta was emplaced on the remnants of the flattened-out Fallopian tube and adjacent structures, and evidently derived its blood supply from the uterine and ovarian arteries. The pelvic peritoneum normally forming the folds of the Fallopian tube, round and ovarian ligament, formed the outer covering of the fetal sac and was adherent in only one place to the intestines, which was separated easily. We would conclude that this pregnancy was primary in the ampullar portion of the tube and ruptured into the folds of the broad ligament at the time the patient first sought medical service at the Nashville, Tenn., hospital. This was in the second month of the pregnancy and since that it had gradually enlarged between the folds of the broad ligament.

Cases IV. and V. are cases of "missed labor" going approximately six weeks past term before operation.

Case IV. Mrs. B., aged thirty-one, white, married, was admitted to Indianapolis City Hospital, February 13, 1922, complaining of an "overdue pregnancy." Patient had been married twice, seven years the second time. She had had no previous pregnancies and no serious illness except an attack of peritonitis of one week's duration, three years previous to admittance. This may have been a pelvic peritonitis due to gonorrhea. We cannot be sure of that, however. Last menstrual period was March 20, 1921, slightly less than eleven months before admittance. In the latter part of April she had three attacks of pain in the abdomen with vomiting and soreness, but no fainting or vaginal bleeding. This was diagnosed as acute gastritis. During the early months of her pregnancy she had considerable abdominal pain and vomiting. She first felt life August 8, 1921, or approximately four and one-half months after the last menstruation. She was not especially annoyed by the kicking of the child

and did not feel movements after December 15th. On January 6th she had some labor pains from 11 a. m. to 1 a. m. the next morning, when they ceased altogether and never returned. Since then there had been a bloody vaginal discharge. Six weeks had intervened since this false labor. Patient lost weight during the pregnancy and has had intestinal disturbance continually. Breasts contained milk in January, but had less milk at time of admission.

Physical Examination—Physical examination was essentially negative except for a tumor in the abdomen. The abdomen was asymmetrically enlarged more to the right of umbilicus. The enlarged mass was firm and fixed, extending twenty-eight cm. above symphysis. Fetal heart sounds or movements were absent. Pelvic examination revealed small cervix uteri and body of uterus to left of fetal head. X-ray revealed a fetus with cranial bones overlapping. W. B. C. 12,000, R. B. C. 3,000,000. Hb. fifty-four per cent.

On February 2nd, by laparotomy, a full term necrotic fetus was removed from the abdominal cavity. The placenta and fetal sac were removed, hemorrhage was controlled, and abdomen was closed using some gauze packing to control oozing. Patient made a stormy recovery. Here again the history would indicate that the tubal rupture occurred in the second month and that the pregnancy then continued as an abdominal pregnancy, the baby dying in the ninth month.

Case V. Mrs. H., age thirty, married, negress, entered the Indianapolis City Hospital April 2, 1924, with a diagnosis of pregnancy five weeks past term.

Patient had been married five years and had had one previous pregnancy that miscarried at five months, three years ago without apparent cause. No history of pelvic disease. Last menstruation was May 15, 1923. She had severe abdominal pains and a bloody vaginal discharge the last of June. Pain began in the epigastrium and ran toward the rectum and vagina. She thought it was gas pains. She had some pain and frequent micturition during first few months of her pregnancy.

She first felt life September 25th, (approximately four and one-half months after the last menstruation), and last felt life five weeks before admission or at about term.

Patient stated that she was not annoyed by the movements of the baby and had had no true labor pains.

Physical examination revealed a colored woman of medium build with slight edema of ankles. There was an aortic cardiac lesion with B. P. of 200 systolic and 100 diastolic and some evidence of chronic nephritis.

Abdominal examination revealed a fetus evidently fully developed in transverse position with

the head to the right, under the right costal margin, which was extrauterine as shown by vaginal examination. The fetus was not found to be particularly superficial and no fetal heart sounds or fetal movements could be discovered.

X-ray showed abdominal tumor to be a fetus in transverse position with overlapping of the cranial bones. W. B. C. 7,800, R. B. C. 3,000,000, and Hb. fifty-two per cent. This overlapping of the cranial bones is interpreted as signifying a dead child.

On April 4th, a laparotomy was done which revealed a fetal sac immediately beneath the abdominal wall. This was opened and a macerated infant and foul smelling liquor amnii were removed. The placenta and fetal sac were found to be adherent to the posterior abdominal wall, to the right side of abdominal wall to the region of the kidney, to the liver, to the pelvic organs and to many intestines. It seemed impossible to remove it and we simply tied off the cord and closed the sac causing very little disturbance to any of the abdominal organs. The patient left the surgery in excellent condition but died in six hours, evidently of hemorrhage.

Autopsy revealed a rather marked hemorrhage into the fetal sac from a small separation of the placenta on the posterior abdominal wall. We felt at the time of operation that we were doing the proper thing by leaving the placenta in place and allowing it to absorb inasmuch as it would have been an insurmountable task to remove it and control all the hemorrhage. I have written to many men throughout the country asking if they have attempted this method of procedure and have found none who have had sufficient experience with this type of case to state their results. Several men have advocated this method of procedure and we hope it can be tried again. We feel that it is the most logical way to handle this type of case as it would have been impossible to remove the placenta in this case without losing the patient from hemorrhage, inasmuch as its attachments were so extensive. This patient had a systolic blood pressure of 200 and was therefore not a good surgical risk for any type of operation. With the blood pressure elevated to that degree a patient is much more prone to hemorrhage and I feel that this was therefore not a fair trial for this method of procedure.

Experimentally the placenta has been left in the abdomen of animals, and has been found to be absorbed in six weeks. There is no reason to doubt but that the placenta and fetal sac will be absorbed in a woman although the convalescence may be somewhat prolonged.

The diagnosis of the extrauterine pregnancy at term is not always easy. The irregular history, violent kicking of the baby, very superficial fetal parts, with a fetus that changes position frequently, are important points in the diagnosis of this condition. When the finger in the cervix of

the uterus feels a distinct partition separating it from the head, this condition should be suspected before considering the partition a placenta and attempting to deliver by vaginal route. This has been done with fatal results.

The treatment of this last group of cases is always surgical. They may be dealt with by the so-called primary or secondary operations. By secondary method, the operation is delayed until six to eight weeks after the death of the baby. Then the blood vessels are thrombosed and there is less danger of death from hemorrhage. The part, however, may become gangrenous and a fatal sepsis ensue. In many cases the foetus does die, and the mother continues to live with a lithopedium formed in the abdomen, which are not removed until years later at autopsy or operation. Even a normal pregnancy may occur in the interim. Several cases of this nature have been reported.

The primary operation is most often done, the fetus being removed and the pregnancy interrupted as soon as the diagnosis is made. More often a cesarean section is done, not knowing the exact pathology preventing delivery until the abdominal incision is made.

There are three classical methods of dealing with the fetal sac and placenta at operation. Sittner has reviewed the literature and compiled some statistics concerning the mortality of a large number of cases over a period of twenty years, dating from 1896, and the following facts are collected from his reports:

One notable fact is that the placenta gets its blood supply almost entirely from the ovarian and uterine arteries. It may get an additional blood supply from a portion of adherent omentum. When these sources of bleeding are controlled there is no other serious hemorrhage to fear unless a portion of an abdominal viscus be torn in separating the adherent placenta from it.

Direct removal of the placenta and sac; first ligating the ovarian and uterine arteries, is the most prevalent method and in a large series of cases gives a mortality of six per cent according to Sittner's statistics. Indirect removal of the placenta leaving the sac, first ligating the uterine and ovarian arteries and ligating any other bleeding points encountered, gave a mortality of slightly more than seven per cent according to the same figures.

Marsupialization (leaving the placenta behind, stitching the margins of the sac to the abdominal wall and packing the cavity with gauze packing), gave a discouraging mortality of approximately forty per cent, due to septic infection, fistula, hemorrhage and general exhaustion. Recovery is very much prolonged in this method. This should be used only where the other methods are not feasible. The fact that it is only used in desperate cases, however, may account for its high mortality.

Another method recently suggested and used with some success is to remove the fetus, tie off the cord, suture the walls of the sac tightly together and close the abdomen without drainage. These products of conception will be absorbed after a prolonged convalescence. I have been unable to collect any statistics concerning the mortality in a series of cases treated in this way, but several men have advocated it. We have tried it in one case with a fatal result as I have related. Undoubtedly the direct method of removing the placenta and ligating the bleeding points is the operation of choice when the attachments of the placenta are not too extensive. In selected cases it gives a lower mortality and morbidity rate with a shorter convalescence. Those cases in which the attachments of the placenta are very extensive and in which it would seem impossible to remove the placenta without losing the patient from hemorrhage, should not be treated by marsupialization, inasmuch as the morbidity and mortality with this method of treatment is very high. It would seem more logical to treat these cases by leaving the placenta in place and closing the fetal sac and abdomen without drainage. It should give better results.

It is very difficult to summarize a paper of this type, but there are a few observations that I wish to emphasize in this conclusion.

1. Extrauterine pregnancy occurs in two to three per cent of all gynecological operations. Many recover without operation. A small per cent of these cases would die of intra-abdominal hemorrhage following a tubal rupture if they were not operated as emergencies. However, after sixteen or eighteen hours, the hemorrhage has probably stopped and a patient in severe shock should be treated temporarily for shock before operation. By this method of treatment the mortality in this type of case would probably be diminished. Each case is, of course, an individual problem.

2. The etiology in many of these cases is in doubt. Gonorrhea, however, was not an important etiological factor in this series of cases and I believe its importance as a causative agent of this condition has been over-emphasized. When it ascends into the Fallopian tubes it more often causes complete sterility. Mild salpingitis due to previous abortions or difficult labors that simply destroys the cilia in the tubes and does other minor damage is a very common forerunner of this condition.

3. Tubal rupture or abortion most often begins in the seventh week.

4. A diagnosis of extrauterine pregnancy before tubal rupture in most cases is impossible because most of the cases do not believe they are pregnant and therefore do not consult a gynecologist until the first symptoms of the rupture have occurred. The symptoms of pregnancy are not as constant in extrauterine as in intrauterine

implantations. Menses do not as often cease and often the irregular bleeding accompanying the gradual tubal rupture is interpreted as the menstrual flow. Most cases should be diagnosed before operation, but an absolute diagnosis is not always possible or absolutely essential.

5. Full term extrauterine pregnancies present typical symptoms, but are very rare and are, therefore, not often diagnosed early in the condition. A case of this sort presents a real surgical problem and an operation of this type is a formidable procedure, especially if an attempt is made to remove the placenta. It is useless to consider the infant in the cases because it is usually deformed and does not live. Therefore, the operation can be delayed for several weeks after the death of the fetus, when the blood vessels are thrombosed and there is less danger of hemorrhage. There is danger of sepsis, however, and operation should probably be performed as soon as the diagnosis is made. The placenta can be removed by the direct method in favorable cases or may be left in place and treated by marsupialization, or by closing the abdomen as we have attempted in one case, which would seem to be a logical procedure.

COMMENT ON OUR PRESENT CONCEPTION OF SOME UROLOGIC PROBLEMS, PARTICULARLY PROSTATIC OBSTRUCTION

ERNEST RUPEL, M.D.
INDIANAPOLIS

In progress, urology has out-distanced many specialties in medicine. This is due in part to the extremely backward position that urology held until a few years ago. The accuracy with which individual kidney function can be determined and the promptness with which growths, calculi and other abnormalities can be ruled within or without the whole of the urinary tract are but a small part of the evidence of advancement beyond the ordinary point. The ulcer that lies below the surface of the bladder mucosa can now be disclosed, and the other causes of intractable cystitis can be dealt with in a manner that is free from guess work.

With better diagnosis has come better treatment. Especially is this true with reference to foreign bodies in the urinary tract. Happily a majority of renal stones will pass spontaneously, but many others can be removed by manipulation. The several ingenious devices to dislodge stones attest to the belief that conservative manipulation is first in order in the removal of calculi with a diameter less than one cm. By way of caution it may be repeated here that a stone in the urinary tract always should be regarded as a destructive agent and should be watched constantly. When it becomes evident that no progress in its passage is being made, surgical intervention is necessary.

There is no more interesting evolution than

that regarding our conception of bladder obstructions. Not many years ago every elderly man who had urinary disturbance was assumed to have an enlarged prostate, and when his physician found residual urine no doubt about enlargement existed. Senile benign prostatic hypertrophy meant obstruction and obstruction meant hypertrophy. When palpation revealed a small apparently inoffensive prostate, it was conceded that there must be certain protrusions into the bladder to cause the disturbance. The supposition was so strongly believed that in recent years some physicians thought that an inspection of the interior of the bladder was not essential before doing a prostatectomy. Few would subscribe to that now. As no one would attempt to give an accurate opinion of the pathology within the chest without the means of inspection, palpation, percussion, and so on, so no one should hazard a guess as to the conditions existing on the anterior surface of the prostate without inspection as well as palpation. The obviously enlarged prostates offer exceptions to this rule.

It was in studying by inspection that the condition of "prostatism without enlargement of the prostate" was found to be an entity. Some persons giving all the subjective symptoms of hypertrophy simply had no hypertrophy. The bladder neck itself was the offender. It requires careful inspection to determine the existence of this so-called "bar" to the bladder outlet, even when the residual fluid is excessive. If inspected directly through an open bladder, the contracted vesical neck presents no great departure from the normal in appearance, but the introduction of a finger discloses at once a tight ring which is absent in the normal sphincter. The exact nature of this ring has been the subject of much controversy. Sclerosis not always is present, for the largest instruments will pass easily. Spasm and hypertonicity seem to play an important part in the obstructing medium and, curiously enough, section in one place often causes a disappearance of the whole ring.

When contracture is found after the bladder is opened, the simplest thing to do is to excise a small V-shaped portion from the posterior margin of the neck, then close the suprapubic wound, using no drainage unless infection in the bladder strongly demands it. If the true state of affairs is determined by cystoscopic examination, the excision also can be made through the urethra. Over forty years ago Bottini devised a galvano-cautery knife to make a transurethral prostatotomy, but the operation had the disadvantages of lack of precision and difficulty of performance. Young simplified the operation when he contrived a tube with a whistle-like opening near the deeper end in which the bladder neck could be engaged, and while thus held a section could be cut out by a sliding inner sheath possessing a sharp edge. Geraghty used a knife-like blade to slip into the

outer tube. Caulk developed Young's idea by making the inner cutting sheath a cautery point that subsequent hemorrhage so common after sharp cutting might be prevented. There is now a device for fulgurating the bladder neck while under direct vision and while in a water medium. Some prefer to open the bladder and take out the V-shaped portion, and since there is very little shock in doing this it is often the best method. The choice of methods is not the point here to be discussed. As a group they show the conservative trend.

The incidence of contracture of the bladder neck is greater than generally is believed. In analyzing 1,200 cases of benign prostatic hypertrophy, Caulk found that exactly forty per cent had the type of orifice that could be relieved by the punch method. I feel quite sure that the splendid showing now held by the punch operation will get even better as the pathology in the bladder neck becomes recognized generally.

In simplicity, the conservative operations commend themselves to any one interested. If the bladder is opened and the neck incised, the long period of suprapubic drainage is eliminated and the patient is out of the hospital as soon as he would be after the closure of any other simple wound. When the punch is used the stay in bed afterward is only four or five days. The mortality is practically nil.

Thorough study of the nature of the individual obstruction will place more and more persons in the class suitable for conservative procedures.

THE ROMANCE OF THE COUNTRY DOCTOR*

CHARLES H. GOOD, M.D.
HUNTINGTON

I am proud to be permitted to address this wonderful assembly, on this magnificent ocean liner, out here on the broad expanse of the ocean, with only the blue of the sky as our canopy and depth of the sea as our shroud if anything should happen. This fine audience and the surroundings all should inspire one to do his best.

You ask from whence I come,
My sole reply shall be from Indiana,
The home of Morton, Marshall and Hay,
Whose fathers were old time country doctors,
Way back in an early day.

No longer does the East ask,
"Hoosier," but welcome, "The Gentleman from
Indiana"
And the nation loves that "Old Sweetheart of
Mine,"
"The Raggedy Man" and "Little Orphan Annie."

*An address delivered on board steamship Araguaya to members of Interstate Post-Graduate-Clinic Assembly of North American Physicians in Europe, 1926.

"But after all, there is no star,
That's brighter than its brothers.
And when of dear old Indiana I brag,
I'm boasting of the others.

"Just which is which, no one can tell,
One star for every state
Gleams brightly in our flag today,
And every one is great.

"We have alike one purpose true,
One common end awaits,
We must in all we dream or do,
Remain "United States."

And if we hope to remain United States we must keep all interests satisfied. The one that suffered most in the last five years after the World's war, was our agriculture. The silver line is just now beginning to rise again, and we all hope it will grow brighter. For when our farmers are depressed our nation suffers.

To me, the health of all the citizens is paramount. I know of no better help along those lines than a good up-to-date, country doctor, well equipped not only in the treatment of the sick, but in preventive medicine, so that the farmer will know that the ones he loves best in case of sickness will receive proper and efficient care. In fact the first duty of the State is to take care of its citizens; not by too much governmental care, for that leads to state medicine, and I am sure that none of us want anything of that kind foisted upon us. A competent, well qualified country doctor is the best remedy for their ills.

Some of our leaders and teachers want a reduction in the years of attending medical school and internships, but from what I know and believe, seven years is about right. Like the old colored fellow, when his boss offered him some bad whiskey his stomach could not stand, said, "If it had been any better you wouldn't have offered it to me. And if it had been any worse, I couldn't have drunk it. So it was just right, boss." So, I think what we want to do is to show our young men that the glory of medicine is not all in the big city, with its Broadway, but out in the little town with its Main street will be found just as much happiness and success. If we do that we have solved the problem. I do not believe we can afford to lower our standards any, for he who takes a human life in his hands must and should be well prepared. There is no higher and nobler ideal than to save a human life, or relieve the pain and cure those who are sick. That is our ideal today as it has been throughout all the past, and never has the medical profession stood higher than at the present time.

When we get to Paris and see the wonders of that city, they say there is nothing more interesting than to look in the Pantheon De Garre, which contains the paintings of all the best that grew out

of the World's war. Each country presents the greatest its nation gave, and the one that brings more tears to the eyes of the visitors is that of the little English nurse, Edith Cavelle, who was so brutally murdered by the Germans in their hope to terrorize the world, but who instead of that placed her name among the immortals. The other, that of an American surgeon, standing out in front of all the great leaders of our country, typifying the American surgeon and physician and what he did to save the world for humanity. And in that picture he not only typified the great leaders, but the country doctor as well.

Modern methods of transportation, improved roads, automobiles and even airplanes have vitally changed all our relations to the country and have a large part to do in sending the young doctor to the large cities, but if he is thinking of achievements in this world's goods, the country doctor is at least equal to the city man. The other day I met in our home hospital one typical country doctor, and having been intimate with him for a quarter of a century I asked him how he had prospered along economic lines. There is hardly any town where he lives, just the corner of four townships, and when he began there were four doctors there. Now only he remains and with good gravel roads and new concrete paved state highways, he alone, with his automobile, takes care of the business. Since beginning he has been to Boston, Baltimore and other eastern cities for post-graduate work, so he keeps up to date; he attends our district medical meetings, has been president of our county society, and his home is modern in every way. His only daughter graduated in a girls' school, majored in the state university, and is now teacher of chemistry. I asked him how he had done financially. He told me he had lost eighteen thousand dollars in bad investments, but had his home, his daughter educated, and had thirty-two thousand dollars in government bonds. Pretty good for a cross-roads doctor.

So it seems to me that with modern transportation, more of our medical graduates should seek the country. In the country you are the most important man in your community, and your friends are true as steel and you are assured a good safe income and some of the bright spots of life. In fact, I know of no one who is better off. The other day in a neighboring county an old-time country doctor died, answered the final summons in the line of duty. When a young man he commenced practicing in that community and for more than fifty years he continued his daily work, growing in the esteem and confidence of all. He went there when the roads were mud and corduroy, no ditches; his means of transportation was afoot or horseback. Now we have the automobile. No night was ever too dark, no day too rainy or cold to cause him not to answer the summons at the door or telephone. He was truly the

(Continued on Page 389)



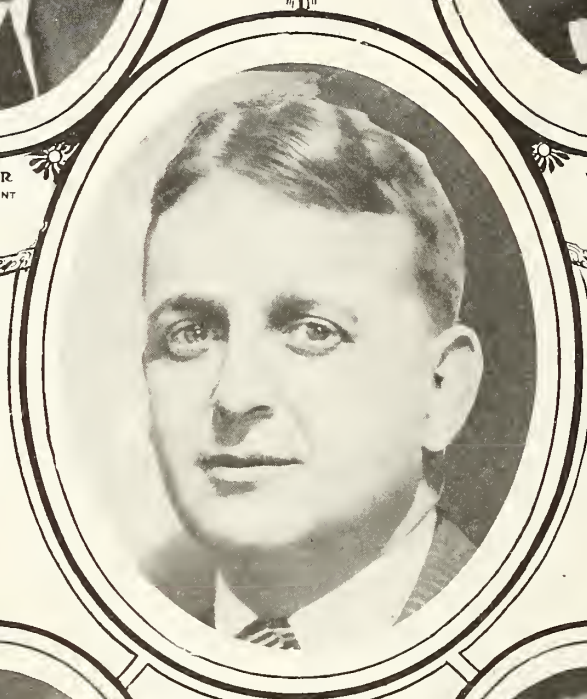
CHARLES N. COMBS
President Indiana State Medical Association
TERRE HAUTE
1926



HERMAN BAKER
FIRST VICE-PRESIDENT
EVANSVILLE



WILLIAM DOEPPERS
TREASURER
INDIANAPOLIS



MR. THOMAS A. HENDRICKS,
EXECUTIVE SECRETARY,
INDIANAPOLIS.



ARTHUR A. RANG
CHAIRMAN SECTION ON SURGERY
WASHINGTON



E. J. LENT
CHAIRMAN EAR, EYE, NOSE AND THROAT SECTION
SOUTH PARIS



B.G. KEENEY
CHAIRMAN SECTION ON MEDICINE
SHELBYVILLE



H.C. FLAMER
SECRETARY SECTION ON SURGERY
INDIANAPOLIS



B.D. RAVDIN
SEC. EYE, EAR, NOSE AND THROAT SECTION
EVANSVILLE



E.O. HARROLD
SECRETARY SECTION ON MEDICINE
MARION

THE WEST BADEN SESSION

The annual session of the Indiana State Medical Association will be held at West Baden, Wednesday, Thursday and Friday, September 22, 23 and 24. Indications point to one of the largest conventions in the history of the Association.

ROADS TO WEST BADEN

There are two railroads entering West Baden, thus making it accessible from anywhere in the state. For the automobile tourist there is the welcome information that five federal and state hard surface highways enter West Baden. Motor-ing will be found a pleasure in this beautiful southern country. Everyone who is coming by automobile from any part of the state should consult state highway bulletins to learn of any detours.

THE CITY

West Baden is located in Orange county, in the southern part of the state. According to the census of 1920, West Baden has a population of 832. West Baden and French Lick, the latter only a mile away, are essentially resorts, and the two form one of the outstanding convention centers of America.

THE CONVENTION AT A RESORT

The Committee on Arrangements wishes to impress upon members of the Indiana State Medical Association that every member and his wife will have a good time while at West Baden; that the coming convention promises to be one of the best in the history of the Association; that the hotel and rooming accommodations will be unusually ample; that there will be plenty of room in the same building with the meetings for the largest and best exhibit of instruments, drugs, supplies, etc., ever displayed at any of our conventions; that there will be safe arrangements for care of your automobiles; that the sessions and displays will be protected from noises and interruptions; that there will be unusual opportunities for fraternal and professional contact; and that the place offers exceptional opportunities for such recreation as golf, tennis, horseback riding, swimming, etc.

HOTELS AND MEALS

West Baden has several hotels and rooming houses. The West Baden Springs Hotel, headquarters for the convention, contains 708 rooms provided with a bath, lavatory, clothes closet, steam heat, electric lights, hot and cold water,

and telephone. The Homestead Hotel has more than 100 rooms and a very fine cafeteria. The Committee on Arrangements has provided for ample rooms to take care of all who attend the convention. There will be no room hunting. Every man will get his assignment as he registers, and will be taken to his quarters when he is ready. Those who have not already reserved rooms need not fear that they will suffer delays, for accommodations have been secured for all who will come. No visitor will be assigned a room without a telephone. When he registers, all information will be on a card at headquarters, so that he can be reached if wanted from home or elsewhere. Headquarters will be open twenty-four hours of the day, and all messages will be transmitted promptly.

The local committee wants to emphasize the fact that West Baden's visitors will be made comfortable and will be taken care of without delays. Those who elect to go to any other hotel than the West Baden Hotel, where all the meetings will be held, are assured that they will be assigned to quarters that meet their requirements.

GOLF

The annual tournament of the Indiana State Medical Golf Association will be held at the golf course of the West Baden Springs Hotel, Wednesday afternoon, September 22, from 1:00 to 5:00 p. m. Golf enthusiasts will be delighted with this course. The tournament will consist of eighteen holes, medal handicap. Golfers who heretofore have not participated in these tournaments especially are invited to start this year. Privileges of the course are extended to all members of the Association, their wives and guests. Golf trophies will be presented at the general entertainment, Wednesday evening, 8:30 o'clock, in the Atrium of the West Baden Springs Hotel.

HEADQUARTERS

The West Baden Springs Hotel has been secured for all of the activities of the Association. The hotel is well equipped to entertain and care for either large or small gatherings. The Convention Hall will seat 1,200 guests, while the Assembly Room will accommodate an additional 500. Ample committee rooms of various sizes are available. Technical exhibits will be in the



DUNNING S. WILSON

Chairman Committee on Arrangements
FRENCH LICK

Atrium of the hotel. A corps of assistants will remain at Headquarters where everyone is asked to go at once and register and see about his lodging quarters. All information about any phase of the convention activities will be dispensed at the desk marked "Information." Fraternities, college reunions, etc., needing banquet facilities

wives and guests in the main dining room of the West Baden Springs Hotel.

WOMEN PHYSICIANS

Women physicians will have a luncheon, social gathering and conference at 12:45 p. m., Thursday, September 23, in the special dining room of the West Baden Springs Hotel. Introduction will be given by Dr. Nettie B. Powell, of Marion, and Dr. Anna Blount, of Chicago, will address the meeting.

LADIES' ENTERTAINMENT

Little can be given in detail now concerning the entertainment to be provided for physicians' wives and women guests. There will be a tea for the ladies on Thursday afternoon, September 23, at 3:30 o'clock, at the Hoosier Country Club. A local committee will have a representative at Headquarters to give information to the ladies as they arrive and see that they are kept busy. Aside from any planned entertainment, West Baden offers entertainment of all kinds, and sports may be enjoyed under ideal conditions.



No. 1 Spring, Known as the "Hygeia"

or meeting places can be well taken care of inasmuch as there is a large number of private dining rooms in the West Baden Springs Hotel, making it possible to serve a number of group luncheons or dinners without interruption or distraction.

ENTERTAINMENT

General entertainment for physicians, wives and guests will be held in the Atrium of the West Baden Springs Hotel, Wednesday evening, September 22, at 8:30 o'clock. Golf trophies will be presented. It is hoped that a full attendance will have arrived in time for this pleasing event.



A Golfer at West Baden Springs, Indiana

The county secretaries will have a luncheon and conference at 12:45 p. m., Thursday, September 23, in the special dining room of the West Baden Springs Hotel.

Thursday evening, September 23, at 7:30 o'clock, there will be a banquet for physicians,



Casino, Bowling Alleys, Pool and Shooting Galleries

There are golf links, tennis courts, a swimming pool, and dancing, cards, bowling and billiards may be enjoyed. Concerts morning and afternoon, and dance programs at nights, are furnished by an orchestra. Picture shows are held nightly in one of the big rooms of the inner court. A splendid stable of Kentucky-bred registered saddle horses is maintained for those who enjoy riding.

PROGRAMS

Complete programs will be issued as visitors register, giving every detail of the convention. These programs will include information about ladies' entertainments, shows, reunions, banquets, luncheons, scientific meetings, clinics, etc. Both location of events and time will be given.

OFFICIAL CALL TO THE HOUSE OF DELEGATES

The next annual session of the Indiana State Medical Association will be held at West Baden, Wednesday, Thursday and Friday, September 22, 23 and 24, 1926.

The House of Delegates will be constituted as

follows: Marion County, 8 delegates; Allen County, 2 delegates; St. Joseph County, 2 delegates; Vanderburg County, 2 delegates; Vigo County, 2 delegates; the other seventy-eight counties each one delegate; thirteen councilors; the ex-presidents, namely, G. W. H. Kemper, G. F. Beasley, C. S. Bond, M. F. Porter, W. N. Wishard, J. C. Sexton, G. W. McCaskey, A. W. Brayton, J. B. Berteling, G. T. McCoy, T. C. Kennedy, W. F. Howat, J. H. Oliver, J. R. Eastman, W. H. Stemm, C. H. McCully, David Ross, W. R. Davidson, C. H. Good, Samuel E. Earp, and E. M. Shanklin; in addition to these, the president, secretary and treasurer, and the editor of *THE JOURNAL*, all without power to vote except in case of a tie, when the president shall cast the deciding vote.

Blank credentials have been sent by the secretary to each county society, and the properly executed credentials for the delegates should be mailed immediately to Thomas A. Hendricks, 1004 Hume-Mansur Building, Indianapolis, or brought to the session. No delegate will be seated unless wearing the official badge.

The House of Delegates will convene promptly at 2 p. m. Wednesday, September 22nd, in the Assembly Room of the West Baden Springs Hotel, and again at 7 a. m. Friday, September 24th, in the special dining room at the West Baden Springs Hotel.

The order of business will be as follows:

1. Call to order by the President.



No. 3 Spring, Known as the "Appolo"

2. Roll call and seating of qualified delegates.
3. Reading of the minutes of previous meetings.
4. Report of the Executive Secretary.
5. Report of the Treasurer.
6. Report of the Chairman of the Council.

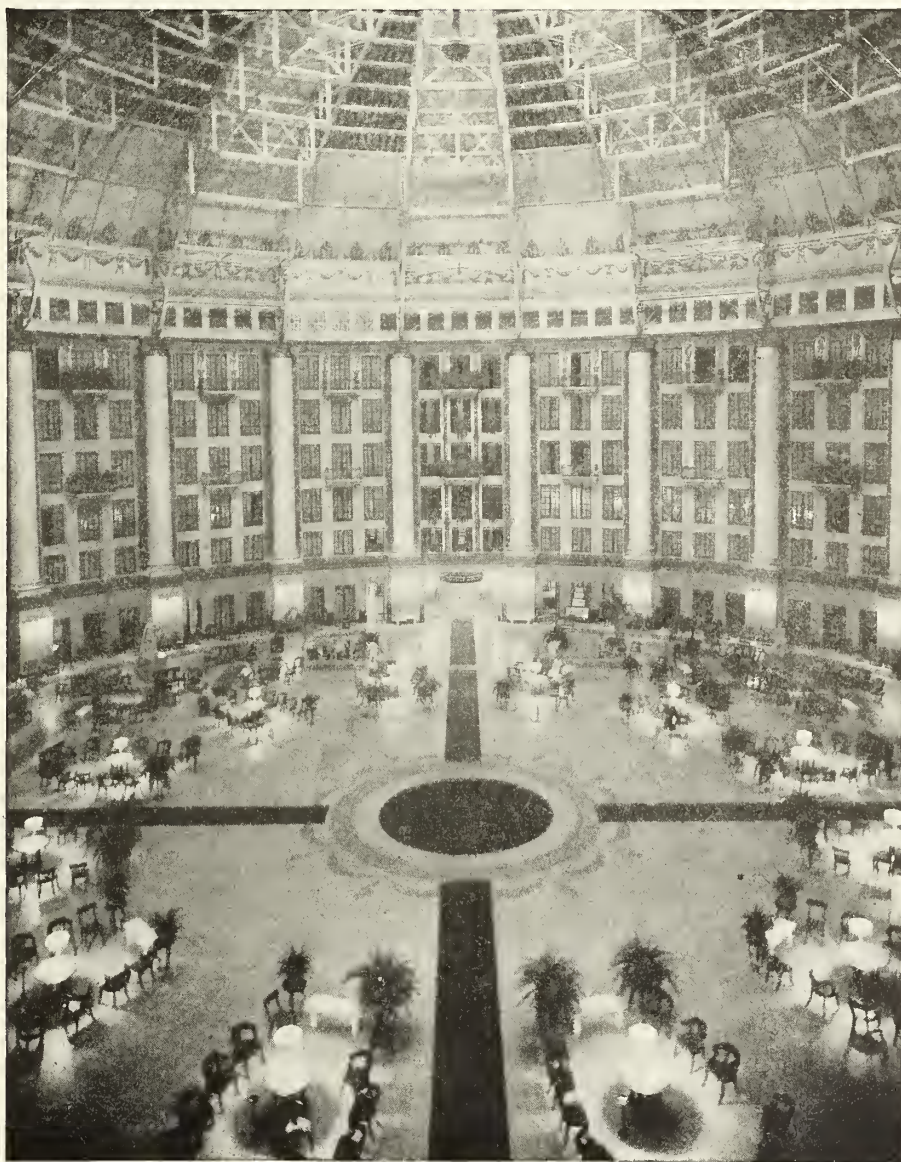


Interior View of No. 7 Spring

7. Report of standing committees:
 - a. Credentials.
 - b. Administration and Medical Defense.
 - c. Public Policy and Legislation.
 - d. Bureau of Publicity.
 - e. Medical Education.
 - f. Hospital Standardization.
 - g. Anesthesia.
 - h. Scientific Work.
 - i. Necrology.
 - j. Industrial and Civic Relationship.
 - k. Delegates to A. M. A.
 - l. Arrangements.
8. Reading of Communications.
9. Reading of Memorials and Resolutions.
10. Unfinished Business.

11. New Business.
12. Adjournment.

The election of officers will be the first order of business Friday at 7:00 a. m. In addition to the regular officers, the terms of the following expire January 1, 1927, and their successors must be elected at this session: Delegates to the American Medical Association to succeed David Ross, Indianapolis, and Joseph Rilus Eastman, Indianapolis; alternates, Frank S. Crockett, Lafayette and William Kennedy, Indianapolis, to be elected for the ensuing two years. Member of the Committee on Hospital Standardization to succeed W. H. Stemm, North Vernon, for the ensuing five years. Member of the Committee on Administration and Medical Defense to succeed



A View of the Atrium

David Ross, Indianapolis. Delegates from counties comprising the first, fourth, seventh, tenth and thirteenth districts are reminded that the terms of their councilors will expire December 31, 1926, and new councilors should be elected to succeed the following:

First District, W. R. Davidson, Evansville;
Fourth District, C. E. Gillespie, Seymour;
Seventh District, O. T. Scamahorn, Pittsboro;
Tenth District, E. E. Evans, Gary;
Thirteenth District, C. Norman Howard, Warsaw.

Some of these elections already have been held, but they should be reported to the House of Delegates at this session for confirmation.

THOMAS A. HENDRICKS,
Executive Secretary.

ANNOUNCEMENTS

All members and those accompanying them are requested to register upon their arrival. The Bureau of Information and Registration will be in the center of the atrium of the West Baden Springs Hotel.

Members of the House of Delegates are reminded that the first meeting will be on Wednesday afternoon at 2 o'clock. Members of the Council are to meet Wednesday at 12:30 o'clock.

Arrangements for class dinners or luncheons should be made promptly through the chairman of the Committee on Arrangements. Due care should be observed not to have any social functions interfere with the scientific meetings.

Essayists are reminded that all papers presented before the Association become the property of the Association and, therefore, are not to be published or submitted for publication elsewhere than in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION.

The election of officers will be the first order of business at the meeting of the House of Delegates to be held Friday morning, September 24. No member of the House of Delegates is eligible to office, and delegates to the American Medical Association must have been members in good standing of the A. M. A. for the past two years.

You are requested to wear the official badge which is supplied when you register, when attending or participating in the meetings. Members of the House of Delegates will have designating badges. Only those who are accredited delegates are entitled to vote at the meetings of the House of Delegates or even to address the House of Delegates without special permission.

Register early. The booth for registration will be open throughout the session. Please have your pocket cards with you in order to avoid delay in registration. If you have paid your dues to your county society secretary *only recently* and have not yet received your membership card, present a receipt from the county secretary and you will be permitted to register. Please get your badge and wear it.

Essayists should remember that their papers as presented at the West Baden session represent copy for THE JOURNAL and, accordingly, the title and full name and address of the essayist should appear at the top of the manuscript, and the body of the manuscript should be edited carefully. Attention to the paragraphing,

punctuating, capitalization and grammatical construction of sentences will go a long way toward helping the editor and printers. All manuscripts should be typewritten.

There will be a general entertainment in the atrium of West Baden Springs Hotel at 8:30, Wednesday evening, for physicians, wives and guests. It is hoped that there will be a big turnout to this event. The entertainment will include presentation of golf trophies.

The ladies will have ample entertainment at the West Baden session. On Wednesday evening, September 22, there will be a general entertainment in the atrium of West Baden Springs Hotel for the physicians, wives and guests. On Thursday afternoon at 3:30 there will be a tea for the ladies at the Hoosier Country Club, and Thursday evening at 7:30 there will be a banquet for physicians, wives and guests in the main dining-room of the West Baden Springs Hotel.

Dr. LaRue Carter, head of the ex-service medical officers for the state, has announced that the annual luncheon of the ex-service men of the medical profession will be held on Thursday noon, September 23, at the West Baden Springs Hotel.

CONDENSED PROGRAM

Wednesday, September 22, 1926

MORNING

Registration, 10 a. m. to 6 p. m., center of atrium of West Baden Springs Hotel.

Technical Exhibit, 10 a. m. to 6 p. m., atrium of West Baden Springs Hotel.

AFTERNOON

Meeting of Council, 12:30 p. m. Luncheon in special dining room at West Baden Springs Hotel.

Golf Tournament, 1:00 to 5:00 p. m., eighteen holes medal play over West Baden Springs Hotel course.

Meeting of the House of Delegates, 2:00 p. m., Assembly Room, West Baden Springs Hotel. (House of Delegates convenes earlier than usual this year in order that time may be had for a thorough discussion and consideration of the new constitution and by-laws of the Association.)

EVENING

General entertainment in atrium of West Baden Springs Hotel at 8:30, for physicians, wives and guests. Presentation of golf trophies.

Thursday, September 23, 1926

MORNING

Registration, 8:00 a. m. to 5:00 p. m., atrium of West Baden Springs Hotel.

Technical Exhibit, 8:30 a. m. to 6:00 p. m., atrium of West Baden Springs Hotel.

Joint meeting of all sections, 9:00 a. m. to 12:30 p. m., Assembly Room, West Baden Springs Hotel.

Periodic Health Examination demonstration, 10:00 a. m. to 11:00 a. m., main floor, West Baden Springs Hotel.

AFTERNOON

County Secretaries' Luncheon and Conference, 12:45 p. m., special dining room, West Baden Springs Hotel. Fraternity and class luncheons, 12:45 p. m.

Meeting of Medical Section, 2:00 to 5:00 p. m., Assembly Room, West Baden Springs Hotel.

Meeting of Surgical Section, 2:00 to 5:00 p. m., main floor, West Baden Springs Hotel.

Meeting of Section on Ophthalmology and Otolaryngology, 2:00 to 5:00 p. m., main floor, West Baden Springs Hotel.

Tea for ladies, Hoosier Country Club, 3:30 p. m.

EVENING

Banquet, 7:30 p. m., for physicians, wives, ladies and guests, main dining room, West Baden Springs Hotel.

Friday, September 24, 1926

MORNING

Registration, 8:00 a. m. to 1:00 p. m., atrium of West Baden Springs Hotel.
 Technical Exhibit, 8:30 a. m. to 1:00 p. m., atrium of West Baden Springs Hotel.
 Meeting of House of Delegates (Breakfast), 7:00 a. m., special dining-room, West Baden Springs Hotel.
 Meeting of the Council, immediately following adjournment of House of Delegates.
 Meeting of Medical Section, 9:00 to 12:00 a. m., Assembly Room, West Baden Springs Hotel.
 Meeting of Surgical Section, 9:00 to 12:00 a. m., main floor, West Baden Springs Hotel.
 Meeting of the Section on Ophthalmology and Otolaryngology, 9:00 to 12:00 a. m., main floor, West Baden Springs Hotel.
 Periodic Health Examination demonstration, main floor, West Baden Springs Hotel, 10:00 to 11:00 a. m.

**OFFICIAL PROGRAM OF THE ANNUAL
SESSION OF THE INDIANA STATE
MEDICAL ASSOCIATION**

**To Be Held at West Baden, Indiana
September 22, 23, 24, 1926**

House of Delegates

First meeting, Assembly Room, West Baden Springs Hotel, Wednesday, September 22, at 2:00 p. m.
 Second meeting, Special Dining Room, West Baden Springs Hotel, Friday morning, September 24, at 7:00 o'clock (breakfast meeting).

Council

First meeting, luncheon in Special Dining Room, West Baden Springs Hotel, Wednesday, September 22, at 12:30 p. m.
 Second meeting, Friday, September 24, immediately following adjournment of House of Delegates.
 Additional meetings at the call of the chairman of the Council.

General Meeting

Assembly Room, West Baden Springs Hotel, Thursday, September 23, 9:00 a. m. to 12:30 p. m.

Section on Surgery

Thursday, September 23, 2:00 to 5:00 p. m., main floor, West Baden Springs Hotel.
 Friday, September 24, 9:00 to 12:00 a. m., main floor, West Baden Springs Hotel.

Section on Medicine

Thursday, September 23, 2:00 p. m. to 5:00 p. m., Assembly Room, West Baden Springs Hotel.
 Friday, September 24, 9:00 to 12:00 a. m., Assembly Room, West Baden Springs Hotel.

Section on Ophthalmology and Otolaryngology

Thursday, September 23, 2:00 to 5:00 p. m., main floor, West Baden Springs Hotel.
 Friday, September 24, 9:00 to 12:00 a. m., main floor, West Baden Springs Hotel.

Periodic Health Examination Demonstrations

Thursday, September 23, 10:00 to 11:00 a. m., main floor, West Baden Springs Hotel.
 Friday, September 24, 10:00 to 11:00 a. m., main floor, West Baden Springs Hotel.

Secretaries' Meeting

County Secretaries' luncheon and conference at 12:45 p. m., Thursday, September 23, Special Dining-room, West Baden Springs Hotel.

Meeting of Women Physicians

Luncheon, social gathering and conference at 12:45 p. m., Thursday, September 23, Special Dining-room, West Baden Springs Hotel.

Technical Exhibits

Wednesday, Thursday and Friday, atrium, West Baden Springs Hotel.

Registration

Wednesday, 10:00 a. m., until Friday, 1:00 p. m., center of atrium, West Baden Springs Hotel.

Entertainment

Wednesday afternoon, September 22, golf tournament, 1:00 to 5:00 p. m., West Baden Springs Hotel course.
 Wednesday evening, September 22, general entertainment in atrium of West Baden Springs Hotel. 8:30 o'clock, for physicians, wives and guests.
 Thursday noon, luncheon for ex-service men of medical profession, West Baden Springs Hotel.
 Thursday afternoon, September 23, 3:30 p. m., tea for ladies, Hoosier Country Club.
 Thursday evening, September 23, 7:30 p. m., banquet for physicians, wives and guests, main dining-room, West Baden Springs Hotel.

SCIENTIFIC PROGRAM

GENERAL MEETING

(ASSEMBLY HALL, WEST BADEN SPRINGS HOTEL)

Thursday, September 23, 9:00 A. M.

Organization.

Address of Welcome—DUNNING S. WILSON, Chairman of Arrangements Committee.

President's Address—CHARLES N. COMBS, Terre Haute.

1. JOHN W. CARMACK, Indianapolis.

Subject: "Infection of Accessory Sinuses."

Abstract:—Nose and accessory sinus infections occur because of (1) a lowered general resistance, (2) a local disturbance which is usually a result of obstruction.

The local disturbances which produce obstruction are: (1) Developmental defects, in maxilla and nose; (2) hypertrophied or swollen lymphoid tissue (tonsils and adenoid); (3) deflected nasal septa and septal spurs; (4) hypertrophied turbinates, polyps, etc.

Treatment must be both general and local. The primary local disturbance is usually obstruction, therefore obstruction must be removed for a cure. In children, operation is not often required, but it must be exact and results are often slow.

Discussant: R. H. Egbert, Martinsville.

2. MAX BAHR, Indianapolis.

Subject: "Malaria Therapy of Paresis."

Abstract:—Paresis is a form of nervous syphilis which has been accepted up to the present time as an irrecoverable disease, with rare exceptions, which progresses to fatality in from three to five years. It is of the greatest interest, therefore, to consider a method of treatment which appears to modify this alarming prognostic outlook.

The treatment of paresis by inoculation with malaria has been tested in recent years, particularly in Germanic countries, with most encouraging results.

The methods of inoculation used by us at the Central Indiana Hospital for Insane were the intravenous and subcutaneous methods, which are considered the best. Using every antiseptic precaution 2 c.c. of blood is withdrawn from the superficial vein of the forearm of the patient and injected immediately into the vein or into the subcutaneous tissue of the scapula. The periods required for incubation vary from five to twelve days, the average being from ten to twelve days. It requires a longer period for colored patients where the reaction is slower. The number of paroxysms allowed before medication number from eight to twelve, the average being ten. When the required number of paroxysms have been manifested the patient is given five grains of hydrochloride of quinine three times a day for five days. Treatment is then discontinued for four or five days and then three grains of quinine is given three times a day for nine days.

There is no established principle by which the improvement of general paresis by malaria is explained. It is based purely upon practical experiences and observations, but hypotheses for the action of malaria upon general paresis have been suggested. Plaut proposed the idea of an immunity reaction, *i. e.*, that the host infected with malaria produces antibodies or other substances which act against the spirochete pallida. Another theory is that the body temperature is the factor chiefly responsible for the favorable effect exerted by the intercurrent infection. It has been proven experimentally that by exposing rabbits infected with syphilis to a temperature of 107 to 110 degrees F. for an hour, and repeating not less than three times, a complete disappearance and death of spirochetes present in scrotal chancres of the animals resulted. It is known that the spirochete fails to grow at temperatures in excess of 104 to 106 degrees F.

Our series consists of approximately 100 cases of parietic patients and we have classified our results into very good remissions, good remissions, fair remissions, as where the disease has been arrested, those not benefited and those who died. These results will be presented in tabulated form.

Counter indications for malaria therapy are markedly debilitated and poorly nourished persons. This is not so much on account of the danger from complications as from their inability to withstand the necessary number of febrile attacks, so that treatment must be stopped before the desired results are obtained.

In the advent of the appearance of alarming complications during the febrile attacks the latter can be arrested promptly by the administration of quinine.

Our experience seems convincing that the course of paresis is definitely modified by malaria, and that a considerable number of patients are markedly benefited.

Demonstrations with photographs, pathological specimens and charts will accompany the presentation.

Discussant: G. A. Estel, Madison.

3. ERNST LOWENSTEIN, Vienna, Austria.

Subject: "Some Phases of Tuberculosis."

(No abstract submitted.)

4. JOHN R. NEWCOMB, Indianapolis.

Subject: "Non-Operative Treatment of Cataract."

Abstract:—Theories of the pathogenesis of senile cataract. Remedial agents generally employed in the attempt to arrest and cure cataract. Discussion of the theory that senile cataract is due to toxins in the blood arising from faulty metabolism. Argument for the employment of Lens Extract, subcutaneously, for the relief of senile cataract. Resume' of results obtained following the administration of Lens Extract. Method of administration. Changes in the lenticular opacification observed ophthalmoscopically and means employed to detect change in degree of opacification.

Conclusions: In mature cataract improvement is infrequent following prolonged administration of Lens Extract. The subcutaneous injection of Lens Extract in the treatment of immature senile cataract has resulted in increased visual acuity in over ninety percent of all cases treated. The results obtained indicate that the form of treatment is positive in its action, free from unpleasant reaction, and if continued a sufficient length of time will result in securing adequate vision in the majority of cases.

Discussant: H. K. Langdon, Indianapolis.

PERIODIC HEALTH EXAMINATION DEMONSTRATION

Main floor, West Baden Springs Hotel, Thursday, September 23, 10:00 to 11:00 a. m., Robert M. Moore, Indianapolis.

Main floor, West Baden Springs Hotel, Friday, September 24, 10:00 to 11:00 a. m., James H. Stygall, Indianapolis.

MEETING OF WOMEN PHYSICIANS

Luncheon and conference, Special Dining-room, West Baden Springs Hotel, 12:45 p. m., Thursday, September 23.

Introduction by Nettie Bainbridge Powell, M.D., Director of Medical Women's National Association.

Anna Blount, M.D., Chicago—"National Women's Association."

BANQUET

Thursday, September 23, 7:30 P. M.

1. Introduction by President, CHARLES N. COMBS.
2. BURTON D. MYERS, Bloomington.
Subject: "Some Problems of Medical Education."
3. EDWIN P. MORROW, ex-Governor of Kentucky.
Subject: "Tales from the Hills of Kentucky."

COUNTY SECRETARIES' LUNCHEON AND CONFERENCE

(SPECIAL DINING ROOM, WEST BADEN SPRINGS HOTEL)

Thursday, September 23, 12:45 P. M.

1. OLIN B. WEST, Secretary and General Manager, American Medical Association.
Subject: "The County Secretary—Life of Medical Organization."

SECTION ON MEDICINE

(ASSEMBLY HALL, WEST BADEN SPRINGS HOTEL)

Thursday, September 23, 2:00 P. M.

1. PAUL S. JOHNSON, Richmond.
Subject: "Guidance of the Mild Mental Case."
Abstract:—Definition of the class discussed, eliminating the mildly neurotic and the frankly insane who are in need of immediate institutional care. The problem is one for the general practitioner and consulting internist. Factors of etiological importance in determining the line of procedure in directing guidance. The misunderstood element of worry and the futile effort of running away from annoyances. The doctor's place in the re-education and disciplining of the mental processes. The tendency to recurrence and the means of prevention.

Discussants: Donald E. Bell, Newcastle;
LaRue D. Carter, Indianapolis.

2. RALPH H. MAJOR, Kansas City.
Subject: "Experimental and Clinical Observation on Arterial Hypertension."
(No abstract submitted.)

Discussants: V. H. Moon, Indianapolis;
J. H. P. Gauss, Indianapolis.

3. FRANK E. SAYERS, Terre Haute.
Subject: "Differential Diagnosis of Mediastinal Lues."

Abstract:—Acute mediastinitis of luetic origin is probably of but small incidence and may be disregarded. Syphilis as a cause of chronic mediastinitis becomes immediately interesting in that it responds to therapeutics, while chronic mediastinitis due to other causes is exceedingly resistant to therapeutic attacks. Lues is, next to tuberculosis, the most frequent etiological factor in causing this condition. Symptoms of this diffuse mediastinal sclerosis are dependent upon the constriction of, or pressure upon, the various structures contained within the mediastinum, and must be differentiated from other conditions which may be the cause of pressure within the mediastinum. The well-recognized affinity of syphilis for the entire circulatory system makes the recognition and differential diagnosis of this disease in the heart and blood vessels of the mediastinum one of exceedingly great importance. Lues frequently causes ulceration with resultant cicatrization and stenosis of the trachea. The determination of lues as an etiological agent comes as a result of the correlation of the findings of the clinician, the serologist, the roentgenologist, the

pathologist, the ophthalmologist, the otolaryngologist and representatives of other branches of science.

Discussants: Lewis P. Drayer, Fort Wayne;
George S. Bond, Indianapolis.

4. PIERCE MCKENZIE, Evansville.

Subject: "Conduct of Ordinary Labor."

Abstract:—Special interest should be given by the obstetrician to the mother who has lost her first baby and who is trying again. The chief care of ordinary labor is to relieve pain and to be in readiness to help if complications arise. The Gwathney method of relief of pain with the aid of nitrous oxide or ethylene and oxygen is a satisfactory method in most cases. No single method of management is the best for all types of labor. For resuscitation of the child aromatic spirits of ammonia is a valuable aid.

Discussants: C. O. McCORMICK, Indianapolis;
H. D. Fair, Muncie.

Friday, September 24, 9:00 A. M.

(ASSEMBLY HALL, WEST BADEN SPRINGS HOTEL)

5. EDGAR F. KISER, Indianapolis.

Subject: "Modern Methods in Diagnosis and Treatment of Heart Disease."

Abstract:—The world war, the influenza epidemic of 1917, and the development of the electro-cardiograph have contributed to the renewed interest in the study of diseases of the heart. Interest now lies in the study of the heart as a power machine rather than in the exact determination of the part of that machine which is damaged. Myocarditis—acute and chronic. The arrhythmias—their recognition and treatment. Coronary sclerosis—frequency—differentiation from acute indigestion—treatment. Angina pectoris—differentiation from coronary sclerosis—medical and surgical treatment. Subacute bacterial endocarditis—incidence—diagnosis—prognosis treatment. Neuro-circulatory asthenia—incidence in civil life—diagnosis—treatment. Goiter-heart—increasing incidence—value of metabolic study in all tachycardias. Arterio-sclerosis and hypertension. Potential cardiac—early study and careful direction of patients will reduce mortality from heart disease as has the early recognition of tuberculosis reduced the death rate from that disease.

Discussants: H. M. English, Gary;
C. J. McIntyre, Indianapolis.

6. CHARLES P. EMERSON, Indianapolis.

Subject: "The Emotional Life and Its Importance in the Production of Pathological Conditions."

Abstract:—The work of Cannon and others on the influence of the emotions on the glands of internal secretion: the application of this work to disease, especially to arterial hypertension, the importance of the emotions in the production of diabetes mellitus and diabetes insipidus, exophthalmic goiter, and in the development of immunity to infection.

Discussants: O. T. Scamahorn, Pittsboro;
Miles F. Porter, Jr., Fort Wayne.

7. T. H. HARRELL and ELMER BOYD, Evansville.

Subject: "Dyspepsia in the Breast Fed Infant."

Abstract:—Over-feeding or feeding at too short an interval is the cause of dyspepsia in the vast majority of cases. This usually means too short a feeding interval; however, some infants have such a low tolerance for breast milk or for sugar or fats, that even a long interval will not suffice for the correction of the condition.

There are dyspeptic infants who are not only not over-fed but are decidedly under-fed, which has been proved by weighing the infant before and after feeding, over a period of twenty-four to forty-eight hours. These infants seem to show a partial or almost complete intolerance for mother's milk, in all probability, hypoglycemia producing hunger pains and contractions of the intestinal canal play a certain part in bringing about intestinal distress.

final canal play a certain part in bringing about intestinal distress.

Mother's milk containing high sugar, high fat, low protein and low calcium, is conducive to fermentation in the intestinal canal, and when an infant shows a low tolerance for either the sugar or the fat such a food ferments easily in the intestinal canal, bringing about loose watery stools with an acid reaction.

This condition may be corrected by replacing a portion of the breast milk with a food high in protein content, such as calcium caseinate with cow's milk and water, or protein milk. This high protein feeding should be continued without the addition of a carbohydrate until the stools become fairly thick and pasty before any carbohydrate is added. If such a procedure is carried out insidiously most cases of dyspepsia may be corrected within a reasonable length of time; however, on rare occasions it becomes necessary to withhold the breast from the infant for from one to three days, giving a sufficient length of time to fill the bowel with a food high in protein and calcium, in order to change the intestinal flora. At such a time the infant may ordinarily be safely returned to the breast. Rarely is it necessary to completely wean a dyspeptic infant.

Discussants: Milo K. Miller, South Bend;
Mathew Winters, Indianapolis.

SECTION ON SURGERY

(MAIN FLOOR, WEST BADEN SPRINGS HOTEL)

Thursday, September 23, 2:00 P. M.

1. F. C. WALKER, Indianapolis.

Subject: "Precancerous Lesions of the Cervix Uteri."

Abstract:—The vast majority of uterine cancer cases present themselves too late for anything definite to be done. Cervical cancer seems to be on the increase. One effective way to make a favorable showing in combating cervical malignancy is to correct those lesions that predispose to cancer formation.

Precancerous lesions include a number of conditions that are often found before or associated with cervical malignancy. The chief ones are the so-called cervical erosions, polyps, scars, cervicitis, endocervicitis and leukoplacia. Usually there is a combination or association of these lesions. They all represent some form of abnormal cellular activity. Erosions and polyps are the most common. The general practitioner should learn to recognize suspicious lesions as he is the one who is consulted first in most instances.

Treatment should be selected to meet the conditions in each case. Simple cauterizing chemical agents as phenol and silver nitrate are efficient in the milder lesions. More extensive lesions are well treated after the Dickinson hot cautery blade method. The Post electric cautery instrument properly used is very useful in treating most of the cervical lesions. Careful after treatment is very essential.

Surgery is definitely indicated in certain cases. The surgical cervix must be managed with due care to subsequent pregnancies. Women near the menopause who have associated lesions in other parts of the genital tract should have more radical surgery and pelvic reconstruction.

There is great need of bringing the seriousness of the cancer problem before the laity and profession repeatedly. Few people fully realize its gravity. The physician should develop an attitude of suspicion of all cervical lesions of a chronic nature. The intention is that as many cases as possible of cervical cancer shall be prevented. Most of the cases are preventable. The correction of cervical lesions will do much to rid the human race of its greatest enemy—carcinoma.

Discussants: THOS. B. NOBLE, JR., Indianapolis;
B. M. HUTCHINS, Terre Haute.

2. A. C. ARNETT, Lafayette.

Subject: "Varices of the Broad Ligament."

Abstract:—Frequency of Occurrence. Varices of the broad ligament is not a rare condition. It is present to a greater or less degree in eighty percent of child-bearing women. A review of the anatomy of the part with some observations noted during injections of the cadaver, is also of interest and gives an easy conception of the possible causes of this condition. The etiological factors are few. Certain types of women are more prone to be affected than others. Child-bearing, uterine sub-involution, uterine displacements, chronic constipation, etc., being the greatest causative factors.

The diagnosis is arrived at by the process of elimination; history of the patient being important; general physical examination revealing the tendency to vascular weakness followed by the usual visual and bi-manual pelvic examination. At this point it is stated that many of the so-called ovarian troubles, tubal inflammations, and symptoms commonly thought to be produced by these conditions are produced wholly by the varicosities in the broad ligaments.

Treatment is essentially surgical if permanent relief is to be afforded, and consists in correcting lacerations and uterine displacements with ligation or obliteration of these things.

Discussants: Guy P. Grigsby, West Baden;
V. A. Funk, Vincennes.

3. ALEXANDER RANDALL, Philadelphia, Pa.

Subject: "The Prospect of the Prostatic."

Abstract:—A brief review of the development of the operation of prostatectomy followed by a demonstration of the variations in the pathological development of individual cases of prostatic hypertrophy; a survey of the operative methods; discussion of the choice for individual cases; remarks on the mortality, morbidity and post-operative convalescence; lantern slides.

Discussant: W. A. Wishard, Indianapolis.

4. GEORGE T. JOHNSON, Terre Haute.

Subject: "Diaphragmatic Hernia, with Report of a Case."

Abstract:—Diaphragmatic hernia a rare condition and formerly almost exclusively a post-mortem finding. Increasing frequency of diagnosis by use of the x-ray.

Report of a traumatic case due to a compression injury in which stomach, spleen, small intestine, omentum and colon were in thoracic cavity. Symptoms, physical findings, x-ray diagnosis and operative treatment of this case.

Reports of operations on diaphragmatic hernia in the literature reviewed by Hedblom last year. Symptoms of quiescent hernias usually trivial; physical findings often baffling; x-ray appearance not conclusive without the use of the barium meal.

Methods of operative approach; advantages of thoracic incision. Danger of open pneumothorax overstressed in past. Advantages of open pneumothorax and collapsed lung in working on diaphragm; gas-oxygen machine as positive pressure apparatus in emergency. Views of Duval on open thorax. Views of Graham. Experience in present case.

Lantern slides.

Discussants: Marshall C. Sexton, Rushville;
H. O. Shafer, Rochester.

Friday, September 24, 9:00 A. M.

(MAIN FLOOR, WEST BADEN SPRINGS HOTEL)

5. N. K. FORSTER, Hammond.

Subject: "Considerations in the Management of Infections in the Genito-Urinary Tract."

Abstract:—A brief enumeration of the commoner types of organisms found in genito-urinary infections, and a short description of the diagnostic methods and measures available in the determination of the invading organism is given. The advisability of thorough clin-

ical and laboratory study is stressed, and the relation of focal infections to urogenital infections discussed.

The genito-urinary organs are considered in order, and the commoner types of infection found in each structure, together with complicating local conditions, discussed from the standpoint of treatment. Those measures of proven and practical value, both local and general, are considered.

Discussants: W. E. Tinney, Indianapolis;
W. W. Hewins, Evansville.

6. D. F. CAMERON, Fort Wayne.

Subject: "Delay and Its Consequences in Acute Appendicitis, with Analysis of 132 Cases."

Abstract:

1. Incidence. Among 132 patients operated on for acute appendicitis there were 37 with either an abscess or peritonitis, local or general, *i. e.*, 27 percent.
2. Consequences:
 - (a) 6 deaths, all among those with complications, *i. e.*, 16 percent; and among the surviving 31.
 - (b) 4 with attacks of intestinal obstruction, 2 requiring enterostomy.
 - (c) 1 pulmonary embolism with subsequent empyema.
 - (d) 1 cholangitis with jaundice.
 - (e) 1 post operative hernia known, with probably more to follow.
 - (f) 1 ectopic gestation on right side 4 months later.
 - (g) 31 with much prolonged hospital and nursing care and all with marked loss of weight and strength for weeks or months later.

6 deaths, five due to general peritonitis and paralytic ileus; one due to subdiaphragmatic abscess.

3. Responsibility:

- (a) 25 percent, physician was not called in time.
- (b) 75 percent, physician did not advise immediate operation because of:
 1. failure to make diagnosis;
 2. did not realize the danger in delay, and this due too often to:
 - (a) too much publicity for the so-called Ochsner treatment for late cases and not enough for necessity for early operation in all cases.
 - (b) continued faith in ice bags and cathartics.

4. Need for continued re-emphasis of the facts, viz:

- (a) the mortality when operation is performed before rupture or peritonitis is very low, certainly less than 1 percent.
- (b) the mortality after rupture or peritonitis is around 16 percent, and nearly all who do recover show the effects of serious illness for many weeks afterward, and many have very serious other complications such as bowel obstruction, hernia and metastatic abscesses.
- (c) Since most of the physicians who do not appreciate these rather commonplace observations are those who do no operating, an especial attempt should be made to have each physician present when his own patient is operated on.

Discussants: Norman R. Byers, Bedford;
O. G. Pfaff, Indianapolis.

7. W. R. DAVIDSON, Evansville.

Subject: "Regional Anesthesia in Surgery."

Abstract:—Usual infiltration method not to be considered in this paper. Definition of paravertebral, splanchnic, caudal and trans-sacral methods. Modes of induction. Discussion of spinal anesthesia. Position of greatest importance, and reasons.

Discussants: W. D. Gatch, Indianapolis;
Miles F. Porter, Sr., Fort Wayne.

8. M. A. AUSTIN, Anderson.

Subject: "Some Neglected Factors in the Goitre Problem."

Abstract:—This paper will consider some of the things that have been too often overlooked in the preoperative and postoperative care of toxic goitres. With a growing number in the profession treating these patients conservatively, and a far too great number of postoperative failures, the author desires to impress upon the clinician the necessity of getting at the bottom of the temperamental, environmental, social, and sexual causes leading up to emotional conflicts and endocrine explosions.

Discussants: Fred H. Austin, Bloomington;
H. H. Martin, LaPorte.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

(MAIN FLOOR, WEST BADEN SPRINGS HOTEL)

Thursday, September 23, 2:00 P. M.

1. Address, E. J. LENT, South Bend, Chairman of Section.

Symposium: "The Relationship of Accessory Sinus Infection to Diseases of the Eye."

2. BERNARD J. LARKIN, Indianapolis.

Subject: "Ophthalmological Phase."

Abstract:—All manner of extra-ocular and intra-ocular lesions are at times traceable to pathology in the accessory nasal sinuses. Edema of the lids, lacrimal disease, conjunctivitis, keratitis, external rupture of an infected ethmoid, orbital cellulitis, involvement of the ocular muscles and uveal tract, cataract and glaucoma, optic nerve manifestations of every possible description, from simple temporary blurring of the vision to optic atrophy. Enlargement of blind spots, central scotoma, concentration of the field of vision.

It is contended by many observers that pressure is the main factor in the production of retro-bulbar neuritis. Others believe it is due to edema of the optic canal, while still others hold it is a direct transmission of the toxins into the canal of Vossius, and the capillaries supplying the central bundle as the cause. Stark recently advanced the theory that the sensitization of tissues of both the sinuses and the orbit by bacterial toxin produces an allergy resulting in a localized anaphylactic reaction each time an affected individual comes in contact with a fresh infection of the same bacteria in the nose, and possibly other parts of the body.

The whole matter of treatment hinges on diagnosis.

Discussants: A. B. Knapp, Vincennes;
Eugene L. Bulson, Fort Wayne.

3. J. F. BARNHILL, Indianapolis.

Subject: "Rhino logical Phase."

Abstract:

(1) Anatomical Relationships:

This relationship is different in almost every case. In general there is a close intimacy between some portion of the ocular apparatus and one or more nasal accessory sinuses in the majority of individuals. This intimacy of relationship depends much upon the degree of development of the sinuses.

When the sinus development is extreme in extent the orbit is largely surrounded by cells and is separated from them by a thin osseous structure. The optic nerve may lie very close to the sphenoidal cells and may even traverse the post-ethmoidal cells. Slides showing important relationship.

(2) Pathologic Relationship:

Communicating blood and lymph supply of sinuses and ocular structures. Communication of sinus affections to eye through circulatory channels. Communication through close proximity, dehiscence or necrosis.

The pathologic relationship of each separate sinus discussed briefly.

Lantern slides to illustrate important facts.

Discussants: H. Boyd-Snee, South Bend;
J. K. Leasure, Indianapolis.

4. DRS. COLE, BEELER and SMITH, Indianapolis.

Subject: "Radiological Phase."

Abstract:—The x-ray of the nasal sinuses will often locate some cell infection not definitely located clinically. Recent help has been given by Grainger, Pfahler and others in showing infection of the sphenoids. Complete nasal sinus films should always be made in every case, using at least four films and four different views. Proper technique is a very important thing in the diagnosis.

Discussants: Keith T. Myers, Evansville;
Karl T. Brown, Muncie.

Friday, September 24, 9:00 A. M.

(MAIN FLOOR, WEST BADEN SPRINGS HOTEL)

5. FRANCIS LANE, Chicago.

Subject: "Carcinoma of the Bulb and Adnexa."

Abstract:

- Classification;
- Frequency;
- Differential diagnosis;
- Treatment and prognosis.

6. B. D. RAVDIN, Evansville.

Subject: "Post-Operative Treatment of Nasal Cases."

Abstract:—A thorough understanding of the anatomy of the lower anterior half of the lateral wall of the nose is essential before a probe puncture of the antrum is contemplated. In former years probe puncture of the antrum was resorted to primarily in determining the presence or absence of pus in this cavity. This concept still practiced today.

Present-day value of antrum puncture in non-suppurative conditions of the antrum in clearing up some cases of obscure headaches and asthma in adults, and persistent attacks of acute nasal infections and bronchitis in previously tonsillectomized children.

Report of cases.

7. M. G. EREHART, Huntington.

Subject: "Foreign Proteins in the Treatment of Inflammatory Eye Conditions."

Abstract:

- Source of benefit from injection of foreign protein.
- General bodily reaction.
- Response following injection.
- Conclusions.

Discussant: A. L. Marshall, Indianapolis.

REPORT OF COMMITTEE ON CREDENTIALS

House of Delegates, Indiana State Medical Association:

Gentlemen:—The Committee on Credentials recommends that every county society send the name of its delegate and alternate to the office of the Indiana State Medical Association, Room 1004 Hume-Mansur Building, Indianapolis, Indiana, in order that the committee may know who has the authority to vote.

GEORGE D. MILLER, Chairman,

THOMAS A. HENDRICKS, Secretary.

REPORT OF THE EXECUTIVE SECRETARY

House of Delegates, Indiana State Medical Association:

Gentlemen:—Now that the State Association has had an executive secretary for more than a year, it is only right that the members who are putting up \$7.00 apiece annually for state dues should know exactly what is being done with this money and just how it is being done. We will attempt, therefore, to give some sort of an outline which may enable the individual physician who is hard at work in active practice to understand

better how this full time executive secretary's office is serving the various county societies and the individual physicians of Indiana.

I HOW THE \$7.00 IS DIVIDED

Of the \$7.00 that each member pays to the State Association, \$2.00 goes direct to THE JOURNAL, \$.75 to the medical defense fund, and the remaining \$4.25 is used to carry on all the work of the various state committees and meet the expenses of the headquarters or executive secretary's office.

II HISTORICAL DEVELOPMENT OF THE OFFICE:

The office of the full time lay executive secretary has been established since December, 1924. It is the outgrowth and combination of a Medical Publicity Bureau and the regular state secretary's office.

The lay executive secretary is essentially a business manager of the association. The Council and regular committees of the state society surrender none of their powers and duties to the executive secretary but are really more powerful due to the fact that they are more active since the employment of an executive secretary who does the detail work for the various committees.

The executive secretary fills the place occupied by the liaison officer back in the old war days, coordinating the work of the county medical societies in the front line trenches with that of the American Medical Association back at headquarters.

III WHAT DOES THE EXECUTIVE SECRETARY DO?

Administration. The executive secretary takes care of all the administration details of the Association, working through the Administration Committee and under the control of the Council. He makes personal visits to the inactive societies and helps bolster them up and helps maintain a high standard of activity in the larger societies—

- (a) By talks before county and district societies;
- (b) By monthly bulletins to secretaries of county societies.
- (c) By keeping a complete Kardex record of every physician in Indiana, both those who are members of the state association and those who are not. These records are kept up to date and reports on these records are sent monthly to the American Medical Association. He keeps a complete tabulation as to physicians in good standing and physicians who are blacklisted for ethical reasons and a brief history concerning each individual member of the Association, the time he was licensed to practice medicine in the state, the school he attended, his date of graduation and present location.

Medical Defense. The executive secretary keeps all records of medical defense cases. The Indiana State Medical Association has an unusually successful medical defense program for its members. Seventy-five cents of each member's dues go to medical defense. This entails a great deal of clerical and stenographic work.

Treasurer's Office. All detailed work of the treasurer's office has been done from this office since the first of December, 1925. This concentrates all administration duties of the state society in one office, the collection and recording of dues, issuing of membership cards, etc.

Correspondent for THE JOURNAL. The executive secretary acts to some extent as a reporter for THE JOURNAL.

Legislation. The executive secretary is the personal representative of the Association during legislative sessions. Previous to the convening of the legislature he presents the stand of scientific medicine in regard to the cults and makes himself available to do any service possible for any legislator. As the office of the executive secretary is only two squares from the State Capitol, throughout the entire year he keeps in constant touch with state agencies, the Governor's office, the State Board of Medical Registration and Examination, the State In-

dustrial Board, etc. He maintains records of every vote of every legislator on medical questions. Through the state legislative committee, which meets in the office of the executive secretary *daily* during the legislative session, the profession is kept in constant touch with the doings of the legislature. This touch is maintained through the various county legislative committees (each county society has its own legislative committee, which cooperates with the state committee).

Publicity. The office of the executive secretary is also the headquarters of the Bureau of Publicity of the Indiana State Medical Association. This Bureau meets once a week and does an infinite amount of work. It sends out weekly an article on scientific medicine to 200 papers and 600 parent-teacher associations throughout the state. It maintains a speaking bureau and provides medical speakers for lay meetings. It supplies also essayists for county medical society meetings. If a county society wants a speaker on any subject, the county secretary writes to the office of the executive secretary and the matter is presented to the Publicity Bureau. The various newspapers of the state and the various press associations have become accustomed to call the executive secretary in regard to questions of medical news. Thus authentic information upon medical occurrences comes from the office of the executive secretary. The office of the executive secretary cooperates with the Better Business Bureau and the Chamber of Commerce in making reports and gaining information upon quacks.

Acts as Bureau of Information. The executive secretary's office is a bureau of information for newspapers, the lay public and the medical profession, and many requests for information come to this office each day.

Industrial and Civic Relations. Acting as representative of the Committee on Industrial and Civic Relations, the executive secretary keeps in intimate touch with industrial problems, helps to make arrangements for members of our Industrial Committee to speak before labor organizations, arranges hearings with insurance carriers and does a voluminous amount of work in sending out questionnaires to the various agencies affected by the industrial law.

Convention. The executive secretary helps make arrangements for the convention, meeting with the local committee to insure proper accommodations, proper meeting places, proper entertainment, and reporting on arrangements to the Council and other committees.

Commercial Exhibits. One of the big duties of the executive secretary is handling the commercial exhibits at the annual convention. This alone takes an enormous amount of time and correspondence. The office of the executive secretary is responsible for laying out the floor plan, sending out the announcements, getting in the contracts, and collecting money for the commercial exhibit at each convention.

Executive Secretary Acts as Secretary for All Standing Committees. The executive secretary is secretary for the Program Committee and all standing committees and the Council of the Association, arranging details for all meetings, etc.

Council Duties. The executive secretary makes arrangements for the annual midwinter meeting of the Council, brings all matters needing attention before the Chairman of the Council, lays out a docket of procedure at this council meeting and at all meetings maintains files of correspondence, etc.

General Duties. Besides this, the secretary acts as nearly as possible, as representative for each individual physician in Indiana who is a member of the state society. He makes a special effort to give complete information and whole-hearted help to individual physicians who write in on any matter. He will look up and check up on cases that individual physicians have before the Industrial Board, physicians throughout the

state can call upon him for information they may desire in getting material for essays, or obtaining information on anything that has to do with the medical profession. He acts as representative for the medical profession, cooperating with the Indiana University School of Medicine, with the Indiana State Council of Social Agencies, and maintains close touch and cooperation with the State Board of Medical Registration and Examination. *In short, the office of the executive secretary is somewhat more than an employment agency and sometimes does not fall far short of a matrimonial bureau.*

IV GROWTH OF THE ASSOCIATION:

The Association showed a substantial increase in membership last year, a gain from 2,585 members upon August 15, 1925, to 2,661 upon August 15, 1926—a net gain of 76 members for the year. This gain has been made without any lowering of the standards of membership and without any “so-called” membership drive. Through the secretaries of the various county medical societies, the executive secretary attempted to get a check upon the ethical practicing physicians in Indiana who were *not* members of their county and state society. The report showed that 382 ethical practicing physicians in the state are eligible to membership in their county and state society but are not members. When reports are received from counties who have not yet sent in names of these desirable non-members we might estimate the total number of physicians in the state who should be members, but are not members, at 500. These are the men we must work on.

V FINANCIAL REPORT:

Trips made by executive secretary to July 1 that involved expenditures:

Aug. 27—Terre Haute, State Fed. of Labor.....	\$ 5.20
Sept. 10—Warsaw, Thirteenth Dist. meeting.....	10.82
Sept. 15—Marion, final arrangements.....	5.00
Sept. 17—Wisconsin	33.71
Sept. 21-25—Marion convention.....	17.25
Oct. 6—Lebanon	2.66
Oct. 8—Elkhart	15.57
Oct. 27-28-29—West Baden	14.66
Dec. 1—Greenfield, Tri-county meeting.....	.93
Jan. 5-6—Orange Co. Medical Society.....	10.74
Apr. 17-25—Dallas, American Med. Assn.....	115.74
May 13—Hammond	18.00
May 18-19—West Baden and return via Terre Haute	15.17
June 25—Valparaiso, Porter Co. Med. Soc.....	11.26

Total expense of these trips.....\$ 276.71

REPORT OF PETTY CASH FUND

Aug. 1, 1925, to Aug. 1, 1926

RECEIPTS	
Balance on hand Aug. 1, 1925.....	\$ 255.83
Checks received from treasurer for fund.....	1,900.00
Other money received.....	123.62
Total amount	\$2,279.45

EXPENDITURES	
For organization and administrative work.....	\$1,233.30
For legislative work.....	92.64
For Publicity Bureau.....	676.46
For Industrial and Civic Relations Committee.....	9.90

Total

Total amount received.....\$2,279.45

Total expenditures.....2,012.30

Balance in fund.....\$ 267.15

VI CONCLUSION:

Your executive secretary wishes to thank the many physicians of the state whom he has met and with whom he has corresponded in the last eighteen months for

their friendliness, sympathy, helpful suggestions and backing. He wishes to thank the officers of the Association, members of the Council, and each committee for their splendid work and cooperation. He wishes to thank the secretaries of the various component county societies upon whom fall the real work of the Association and to whom must go the lion's share of the credit for successes of the Association for the year.

Your secretary does not feel that any report of this office could be complete without a mention of Dr. Charles N. Combs, president of the Association, who was secretary of the society for so many years. Prior to the employment of an executive secretary, Dr. Combs had served for many years as secretary with little or no compensation, creating and instituting the present system of membership and medical defense records and carrying a large amount of necessary correspondence at a great personal sacrifice of time and energy. The Association owes a lasting debt of gratitude to Dr. Combs, who served the society so long and faithfully in the capacity of secretary. His work forms the foundation upon which our present headquarters office is being built.

THOMAS A. HENDRICKS,
Executive Secretary.

REPORT OF TREASURER

House of Delegates, Indiana State Medical Association:

Gentlemen:—This report will of necessity be made in two periods—first, from August 1 to December 31, 1925, under the management of Dr. Combs, and January 1 to August 1, 1926, under the management of Dr. Doepers.

During the period from August 1 to December 31, the following money was received and expenditures were made by the treasurer according to the books on file in the office of the executive secretary:

RECEIPTS

GENERAL FUND

Money received from exhibitors.....	\$ 1,970.00
Balance on hand Aug. 1, 1925.....	18,736.90
Interest on savings.....	404.00
Dues collected Aug. 1 to Dec. 31.....	420.00
Total amount received.....	\$21,530.90

MEDICAL DEFENSE FUND

Amount on hand Aug. 1, 1925.....	\$ 7,572.80
Interest on bonds.....	212.50

Total amount

EXPENDITURES

Salary of executive sec., Aug. 1 to Dec. 31.....	\$ 1,999.98
Salary of stenographer, Aug. 1 to Dec. 31.....	640.00
Subscriptions to THE JOURNAL.....	110.00
Petty cash fund (itemized acct. of expenditures under this fund on file in office).....	700.00
Councilors	27.73
Treasurer (Dr. Combs).....	500.00
Committee on Automobile Insurance.....	10.45
Convention expenses	2,344.27
Total	\$ 6,332.43

GENERAL FUND

Total receipts	\$21,530.90
Total expenditures	6,332.43

Balance Dec. 31, 1925.....\$15,198.47

MEDICAL DEFENSE FUND

Total receipts	\$ 7,785.30
Attorney fees three cases.....	337.50

Balance

In the period January 1 to August 1, 1926, receipts and expenditures were made as follows:

RECEIPTS

GENERAL FUND

Cash on hand Jan. 1, 1926.....	\$15,198.47
*Membership dues received.....	18,580.00
Total	\$33,778.47

MEDICAL DEFENSE FUND

Cash on hand Jan. 1, 1926.....	\$ 2,447.80
Liberty bond	5,000.00
Interest on bond	106.25
Total	\$ 7,554.05

EXPENDITURES

Salary of exec. sec., Jan. 1 to Aug. 1.....	\$ 2,916.62
Subscriptions to JOURNAL	5,300.00
Treasurer's bond and expense.....	59.00
Printing	313.86
Council meeting and expense of councilors....	175.31
Salary of stenographers.....	1,625.00
Petty cash fund (itemized acct. of expenditures under this fund on file in office).....	1,273.39
Refund on dues.....	7.00
Committee on Industrial and Civic Relations	55.70
Legislative Committee	82.17
Bureau of Publicity, manual on Periodic Examination supplied each member of the Association	269.10
Program Committee	5.90
Russell Newgent for incorporating Assn.....	51.75
Total	\$12,134.80

GENERAL FUND

Total receipts	\$33,778.47
Total expenditures	12,134.80
Balance	\$21,643.67

MEDICAL DEFENSE

Total receipts	7,554.05
Balance on hand Aug. 1, 1926.....	\$29,197.72

Respectfully submitted,

WILLIAM A. DOEPPERS,
Treasurer.

REPORT OF CHAIRMAN OF THE COUNCIL

House of Delegates, Indiana State Medical Association:

Gentlemen:—A summary of the essential action of the Council during the past year follows:

FIRST MEETING, MARION, INDIANA, SEPTEMBER 23, 1925

Roll call showed eleven members of the Council present along with the president of the association, treasurer of the association, editor of THE JOURNAL and executive secretary.

A communication from the American Medical Association asking the view of the Indiana State Medical Association with respect to special privileges for physicians in regard to traffic laws, read and referred to the House of Delegates, who in turn referred the report to the automobile committee, which recommended that no special privileges be given physicians other than special parking privileges.

A communication from the Department of Labor relative to approval of chiropractic schools as institutions of learning for immigrant students was read and the matter referred to the A. M. A. The head of the Bureau of Legal Medicine and Legislation of the A. M. A. has made an investigation into this matter, saying that the

*A \$2.00 overpayment included which was refunded from petty cash fund.

only means of rectifying this grievance is by legislation.

Dr. G. W. H. Kemper, of Muncie, the oldest living ex-president, was called upon and made a pleasing talk before the Council.

The Council reaffirmed and renewed its present contract with Dr. Bulson, editor of THE JOURNAL. In discussing the matter Dr. Bulson said that the present total income of THE JOURNAL from every source was approximately \$15,000 a year, and that the costs of publication, less salary and compensation for the editor, were approximately \$12,000 per year. Previous to last year, the income was much less, but the expense of publication has been slowly increasing for several years, due to the rising costs of material and labor. Dr. Bulson said in some of the early years of THE JOURNAL there had been an annual loss. One year the loss amounted to as high as \$500. He said further that for only two or three years had the compensation of the editor been over \$1,000, and even were it three times as much, it would not be equivalent to the salaries paid the editors of some of the comparable state journals. Dr. Bulson said that had he been so disposed, he could have increased the income of THE JOURNAL by taking questionable advertisements, but he had attempted to maintain the highest ideals and highest ethical standards in everything pertaining to THE JOURNAL.

SECOND MEETING, SEPTEMBER 24, 1925

Ten councilors, the retiring president, the president-elect, editor of THE JOURNAL, and executive secretary present.

The executive secretary was instructed to put a proviso in future technical exhibit contracts to the effect that the Indiana State Medical Association will not be held responsible for shipments of any unauthorized products.

The chairman of the Industrial and Civic Relations Committee discussed the work of the committee.

The question of advertisements in lay papers discussed, but the Council made no recommendation in the matter.

The Council appointed a committee to visit West Baden, make preliminary arrangements for the 1926 convention, inspect accommodations, exhibit arrangements and hotel prices.

THIRD MEETING OF THE COUNCIL (MID-WINTER COUNCIL MEETING), SEVERIN HOTEL, INDIANAPOLIS, DECEMBER 29, 1925

Roll call showed every councilor district represented with the exception of one.

Reports of the councilors by districts showed every district in fair condition, and a tendency for the various local factions to get together on state association matters. Several districts reported good results from tri-county organizations.

The multiplicity of medical societies and medical meetings was discussed, and sentiment expressed that multiplicity of medical society and medical meetings should be discouraged, and all efforts made to make the county society the real organization.

Short reports were made by the officers. Dr. E. M. Shanklin, retiring president, spoke of the increase in membership despite the increase in dues. The chairman of the following committees reported to the Council: Publicity committee, industrial and civic relations committee, administration committee, legislative committee, program committee.

A representative of the Indiana High School Athletic Association appeared before the Council asking the physicians of Indiana to cooperate in a special statistical investigation into high school athletics.

The situation in Floyd county discussed, and the Council assured Dr. Leach and officers of the society that the Association would not go over his head or that of the Floyd County Medical Society in any action that might arise over this situation.

Each Councilor was supplied with a record showing how each representative in his district stood on medical bills in the last session of the legislature.

Narcotic tax reduction was discussed.

The Council laid on the table the so-called "Riley Hospital Resolution," which was presented at the first meeting of the House of Delegates, September 23, 1925, on behalf of the Daviess-Martin County Medical Society.

Dr. Davidson re-elected chairman of the Council.

In a general way the various councilors have been more active than ever before in their various districts. At the present time district legislative meetings are being planned, and wherever these have been held, they have been marked by great success. These legislative meetings will be held in each district of the state before the election in November.

Respectfully submitted,

WM. R. DAVIDSON,
Chairman of the Council.

REPORT OF THE COMMITTEE ON ADMINISTRATION AND MEDICAL DEFENSE

House of Delegates, Indiana State Medical Association:

Gentlemen:—Your Committee on Administration and Medical Defense wishes to submit the following report:

Two functions were performed by the committee during the past year: (1) Administration of the office of executive secretary; (2) administration of the medical defense fund. Due to the fact that the administration duties, powers and limitations of the committee are not definite, the committee found itself somewhat hampered in its work as an administrative agency. The committee therefore would recommend that by-laws be adopted which will specify the duties of this committee.

Medical Defense. During the year 1925-1926 (August 1, 1925, to August 1, 1926) twelve applications for medical defense have been sent out upon request of members of the Association. Of this number eight have been returned filled out by applicants and their defense is being undertaken by the committee. Four application blanks have not yet been returned.

A year ago at the time of the report fifteen cases were pending before the committee. We report the following progress in these fifteen cases:

No. 97—Case settled Sept. 23, 1925, for \$30.00.

Agreement signed that record should show a trial and finding in favor of physician.

No. 107—Suit has never been brought, just threatened.

No. 109—Pending in October, 1925, and no action has been taken by plaintiff in case since that time.

No. 120—Suit in this case has never been filed.

No. 121—Case tried before a jury and verdict rendered in favor of physician October, 1925.

No. 122—Pending.

No. 123—Pending, case held up on demur.

No. 124—Case tried by Indiana State Compensation Board and the attorneys compromised on the malpractice clause and the case was settled on an injury basis.

No. 125—Jury returned a verdict for plaintiff and damages of \$1,500. Will be appealed.

No. 126—Pending. Probably will not be brought to trial because of illness of defendant.

No. 127—Tried September, 1925. Jury disagreed. Reset for trial. Pending.

No. 128—Pending.

No. 129—Application not returned.

No. 130—Pending.

No. 131—Application not returned.

No. 132—Case dropped on account of death of plaintiff.

No. 133—Case dismissed for want of prosecution.

No. 134—Pending.

No. 135—Pending.

New cases for the year 1926:

No. 136—No suit filed as yet, just threatened.

No. 137—Pending.

No. 138—Pending.

No. 139—Application blank not returned.

No. 140—Pending.

No. 141—Pending.

No. 142—Pending.

No. 143—Pending.

No. 144—Pending.

No. 145—Application blank not yet returned.

No. 146—Application blank not yet returned.

No. 147—Application blank not yet returned.

The financial report of the Medical Defense Fund is given in the treasurer's report.

Respectfully submitted,

DAVID ROSS, Chairman,
GEORGE R. DANIELS,
A. L. MARSHALL,
CHARLES N. COMBS,
A. E. BULSON, JR.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

House of Delegates, Indiana State Medical Association:

Gentlemen:—The policy of appointing legislative committees in each of the county medical societies has been continued. Its effectiveness has been proven during the session of the General Assembly of 1925 and the primary of the present year and we think it a policy which should be made permanent in the Association.

A new medical practice act has been drafted and it is expected that at the present meeting it will very largely be placed in form for introduction to the next General Assembly.

Prior to the primary of last May, information was sent from the office of the Association to every doctor in the state, regardless of his membership in the State Association, regarding the attitude of the legislative candidates. In cases where we had not been able to obtain information concerning a candidate we so stated in this bulletin. The responses which have come from throughout the state to this bulletin have demonstrated its worth.

District meetings in all of the councilor districts are now being held. These meetings are attended by the members of the legislative committees of the societies composing the district, together with the county officers and the executive secretary and the members of the State Committee on Public Policy and Legislation.

These meetings have been splendidly attended, evincing a keen interest and an abundance of enthusiasm for the work at hand. The attitude toward public health legislation of each and every legislative candidate in the district is taken up and fully discussed. These meetings will all be concluded some time before the general election in the fall.

The work of the Bureau of Publicity, which originated as a public policy phase of this committee work and which was designed as a means of conveying scientific truths to the public in the name of the State Association and thereby affording a better understanding on the part of the public of the aims, ideals and purposes of the medical profession, has, by acquainting the public with these great truths, greatly influenced the public toward a better understanding and consequently a more friendly attitude toward scientific medicine.

EXPENSES OF THE LEGISLATIVE COMMITTEE OF THE INDIANA STATE MEDICAL ASSOCIATION, 1926	
Expenses of meeting of legislative committee, including traveling expenses	\$ 82.17
Clipping service	14.92
Postage	64.40
Printing letters and addressing envelopes	23.32
Total	\$184.81

Respectfully submitted,

F. W. CREGOR, Chairman,
E. R. ZIMMERMAN,
O. H. RICHER.

REPORT OF THE BUREAU OF PUBLICITY

House of Delegates, Indiana State Medical Association:

Gentlemen:

I. GROWTH OF MEDICAL PUBLICITY:

The medical educational publicity movement has made such great headway throughout the country in the past year that it no longer is local or sectional in extent, but is rapidly becoming national in scope. That the Indiana State Medical Association through its Bureau of Publicity is following the right line in its publicity endeavors is shown by—

(1) Remarks of Wendell C. Phillips, president of the American Medical Association, in his "inaugural" address at the annual convention in Dallas, where he commented and stressed the necessity of proper publicity and lay educational work by agencies of the various state associations. The following short quotation from Dr. Phillips' speech will show how completely Dr. Phillips is in accord with the work of public health education as carried on in Indiana:

"During the last few years many of our leaders of medical thought and particularly those clothed with the responsibility of outlining medical policies, have given serious consideration to the subject of public health education. There has been a slight awakening of the medical conscience as to the trusteeship of physicians as promoters of individual and community health. These pioneers have become alive to the fact that physicians only are qualified by heritage, by education and by experience to give to the public the basic principles of health preservation, and the protection of life that is afforded by sanitation and the scientific application of all the phases of preventive medicine. Given such responsibility, I ask you in all seriousness whether the medical profession of the country has ever lived up to its great opportunity to teach the people how to keep well. It sounds like a simple thing to do, but the reticence of medical men and the innate fear of publicity, the supposed restriction of ethical limitations, have tended to prevent these great educators from fully covering this proper field for a physician's activity.

"Nevertheless, there has gradually developed on the part of the public demands for public health education. *Gradually great newspapers and newspaper syndicates are coming to realize that public health knowledge is a valuable commodity for which the people are willing to pay.* This tendency is leading newspapers, magazines and newspaper syndicates to realize that the public must be given the true facts regarding individual and community health. This further knowledge in turn is showing its influence by the gradual elimination from these publications of the publicity which is sought by nostrums, cults, quackery and other menaces to the public health. This naturally engenders a desire to purvey only well founded information regarding health matters.

"In the quest for such information on the part of great publications, they have learned that organized medicine is the only possible source from which correct information can be obtained."

(2) Editorials that have appeared in the *Saturday Evening Post* urging the medical profession to educate the public in the truths concerning scientific medicine. The following few paragraphs show how keen lay publications are for medical information told in comprehensible fashion by those who are qualified to speak with authority:

The science of medicine, whether because of or in spite of its abundant store of Greek and Latin jaw-breakers, is, as far as laymen are concerned, the most tongue-tied of all the learned professions. Clergymen can deliver their messages in words of one syllable to high and low alike. Lawyers, by skill of word and clarity of expression, can make juries of the most limited education comprehend the essentials of highly intricate cases. The doctors alone are the bondslaves of a vocabulary drawn from the dead languages.

Our physicians, surgeons and health officers are fairly boiling over with important information which they desire to communicate to the general public; but somehow they lack the simple, racy English in which to get it over or the sense of form and accent which would make it interesting and attractive. The inability to write plain understandable English, so readable in form and so accurate in statement that it is easy to make it accessible to large bodies of readers, is costing thousands upon thousands of American lives every year.

Popular medical education cannot be achieved in a day, nor can it be accomplished by scattered outbursts of even the best-framed publicity in many days. The population of the country is too numerous and too widespread and the handicaps are too formidable to warrant any hope of the sort.

The enlightened physician has a great body of news of the highest importance to communicate to non-medical readers. He is fully alive to the educative powers of the newspaper and periodical press, but he does not know how to use the mighty engine he has so long despised. He is unable to frame his warnings with such skill that he can have them printed; or having had them published, he cannot lure people into reading,

digesting and heeding them. His love of long, accurate Greek and Latin words is his besetting sin, and his punishment is in witnessing the affliction which might have been avoided if he had been able to deliver his message interestingly in simple vernacular English.

* * * *

Local organizations should cultivate their own home papers and see that they are supplied with simply and attractively written reports of all transactions in which the public is immediately concerned. They should spare no pains to make them as readable as the effusions of the sporting editor, who has reported their meetings in the past, and as much more accurate as their technical knowledge will permit.

(3) Interest that the Indiana State Dental Society has taken in work of your Publicity Bureau. The dentists at their annual convention in Indianapolis last May set aside an hour on their program for discussion of the educational publicity campaign. A place was reserved for two members of the Bureau on the program who gave an outline of the founding, history, accomplishments and management of the publicity work of the Bureau.

(4) Forming of publicity bureaus in several states where work similar to that of Indiana has been started. Notable among these are Wisconsin and West Virginia. Wisconsin made a complete study of publicity work as carried on in different states and following a visit by the executive secretary of the Wisconsin Medical Society and one of the leading newspaper men of Milwaukee to Indianapolis, the Indiana system was adopted. Notice has just been received that the Toledo Academy of Medicine has taken up work following the general lines of the Indiana system.

II. PRESENT POSITION AND PURPOSE OF BUREAU:

Entering upon its fourth year, the Publicity Bureau of Indiana rightfully feels proud of its work and throughout the country is looked upon as one of the pioneers and leaders in medical publicity. Although stated many times before, it might be well to restate for the profession the purpose of the Bureau.

The purpose of the Bureau is to give the public in interesting, popular fashion, scrupulously accurate information in regard to scientific medicine in its various relations to human needs.

The Joint Committee on Public Health Education of Michigan, which is carrying on an extensive educational campaign by lectures and speakers in that state has prepared a formal statement concerning the object of this committee's work. This statement, which follows, applies to our work in Indiana as well as that in Michigan:

The function of the joint committee is to present to the public the fundamental facts of modern scientific medicine for the purpose of building up sound public opinion relative to the questions of public and private health. It is concerned in bringing the truth to the people, not in supporting or attacking any school, sect or theory of medical practice. It will send out teachers, not advocates.

III. ACCOMPLISHMENTS OF THE BUREAU:

(1) Supplied speakers for the following public and medical meetings in 1925-1926:

1925.

Feb. 5—Richmond Parent-Teacher Association; subject, "Goiter."

Feb. 17—Lafontaine Parent-Teacher Association; subject, "Goiter."

Feb. 24—Lebanon Kiwanis Club; subject, "Ideals of the Medical Profession."

Mar. 25—Lebanon Kiwanis Club; subject, "Heart Disease."

Mar. 30—Fort Wayne Kiwanis Club; subject, "Heart Disease."

Apr. 1—Lions Club of Gary; subject, "Some Phases of Modern Medicine."

Apr. 14—Gary Kiwanis Club; subject, "Private vs. Public Health."

Apr. 16—Madison Co. Medical Society; subject, "Facts and Fads in Psychoanalysis."

Apr. 29—Lebanon Kiwanis Club; subject, "Mental Misfits."

- May 12—Frankfort Rotary Club; subject, "Preventive Medicine and Annual Examinations."
 May 12—Kokomo Rotary Club; subject, "The Problem of the Physician in General Diagnosis and the Importance of General Examinations."
 June 3—Lebanon Kiwanis Club; subject, "Colds and Focal Infections."
 July 2—Connersville Kiwanis Club; subject, "Elimination of Body Wastes Essential to Health."
 July 28—Lawrenceburg Kiwanis Club; subject, "Value of Periodic Examinations and Preventive Medicine."
 July 29—Tri-county Society (Jennings, Bartholomew, Jackson), at North Vernon.
 Oct. 5—Warsaw Kiwanis Club; subject, "Constructive Medicine."
 Nov. 17—Kosciusko County Medical Society; subject, "Demonstrations on Physical Health Examination."
 Nov. 25—Boone County Medical Society; subject, "Anesthesia."
 Nov. 27—Porter County Medical Society.
 Nov. 30—Connersville Kiwanis Club; subject, "Laboratory Work in Relation to the Public."
 Dec. 15—Knox Co. Medical Society; subject, "Heart and Chest Lesions."
 1926.
 Jan. 5—Orange Co. Medical Society; subject, "Organization."
 Jan. 7—Clinton Co. Medical Society; subject, "Periodic Health Examinations."
 Jan. 12—Knox Co. Medical Society; subject, "Periodic Health Examinations."
 Jan. 27—Tri-county Society (Jennings, Bartholomew, Jackson); subject, "Diseases of Children."
 Feb. 16—Madison Co. Medical Society.
 Mar. 2—Rushville Rotary Club; subject, "Bodily Bookkeeping."
 Mar. 30—Lawrenceburg Kiwanis Club and Medical Society.
 Apr. 2—Wesley Bible Brotherhood Class.
 Apr. 1—Clark Co. Medical Society; subject, "Periodic Health Examination Demonstration."
 Apr. 2—Connersville; subject, "Periodic Health Examination Demonstration."
 Apr. 28—Huntingburg Kiwanis Club.
 May 13—Hammond, Chamber of Commerce; big lay meeting.
 May 17—Indiana State Dental Convention.
 May 18—Rotary Club, Mitchell.
 May 26—Third District meeting.
 May 27—Esculapian Society, Terre Haute.
 July 21—Frankfort Kiwanis Club.

(2) Sponsored and aided in arranging many other scientific and lay meetings.

(3) Through energetic work of Bureau, Indiana was one of the leading states in fostering Periodic Health Examination movement—

- (a) By distributing free of charge to each physician who was a member of the State Association "A Manual of Suggestions for the Conduct of Periodic Examinations of Apparently Healthy Persons," the official booklet on this subject prepared by the American Medical Association.
- (b) By supplying speakers trained to give actual periodic health examination demonstrations at county and district society meetings.
- (c) By numerous talks upon Periodic Health Examinations before lay audiences.
- (d) By newspaper releases, urging the necessity of going to your family physician for an annual health examination.
- (e) By completing arrangements for broadcasting various messages on this and other interesting subjects over radio, starting in the fall when

the air clears of static, from Merchants Heat and Light Station (WFBM) and Culver Military Academy Station (WCMA).

(4) Work in conjunction with Better Business Bureau of Indiana, giving statement guarding public against cancer quack institutions, at least one of which is flourishing in Indianapolis.

(5) Establishment in cooperation with Extension Division of Indiana University, of the Package Library Service for the physicians who are members of the society. (Don't fail to learn all about this at West Baden convention.)

(6) Preparation and distribution throughout the state of an article of warning against methods and practices of Bernarr Macfadden and the campaign carried on in his magazine against vaccination and other scientific medical truths. This warning was reprinted in *Echoes*, a publication edited by Isabel E. Glover, R.N., head of the State Department of Public Health Nursing, and Mrs. G. G. Derbyshire, president of the Indiana Parent-Teacher Association, through whose courtesy the warning has been issued to all parent-teacher associations of the state.

(7) Publication of an article each week that goes to more than 250 editors of newspapers and publications, and heads of organizations in Indiana.

(8) Distribution of 600 of each of these articles to the parent-teacher associations of the state each week. This distribution is accomplished through the cooperation of Mrs. Edna Hatfield Edmondson, field worker of the Extension Division of Indiana University and the state secretary of the parent-teacher organization. These releases are often read at local meetings of various parent-teacher association meetings.

LIST OF RELEASES FOR 1925-1926

The newspaper releases have touched upon a varied list of subjects covering many phases of scientific medicine and surgery. The articles starred proved to be the most popular and the most widely printed.

Rejuvenation, Fact or Fancy.

Set for School.

*Shock Troops Against Disease.

Airplane Stunting for Deafness.

*Hoosierland's Health Harvest.

Neuralgia.

Diphtheria.

*Germs.

Infantile Paralysis

When Winter Comes.

Fainting.

*High Blood Pressure.

Shock.

Winter Motoring in Indiana (special article to *Indianapolis News*).

*High School Basketball and Health.

Merry Christmas from the Medics.

Accomplishments in Medicine in Indiana in 1925.

Indiana High School Athletic Assoc. and Ind. State Med. Assoc. to Cooperate.

*Eye Strain.

The Nation's Health.

*Goiter and Iodine.

You May Be Next.

The Shingles Legend.

Sleeping Sickness

An Unpaid War Debt.

*The High Cost of Colds.

Another Medical Triumph.

Measles.

*Spring Fever.

When the Ambulance Siren Sounds.

Anemia.

*Rabies or Hydrophobia.

Ford Fractures.

Spring Cleaning.

Keep Your Eye on the Ball.

Poison Ivy.

Prevent Hay Fever Now!

Safe and Sensible Swimming.

*Antiseptic Surgery.

*Chiggers.

Vacations and Typhoid Fever.

*Sanity of the Fourth.

Ice Drinks in Hot Weather.

IV. SCOPE OF BUREAU'S WORK:

Although the work of the Bureau is designed to be merely local in nature, many of the bulletins issued each week have been reprinted from Indiana dailies and carried in papers and magazines throughout the country. Several articles have been carried in the national magazine of the Parent-Teacher Association, and the national publication of the Association for the Prevention of Blindness.

Among the newspapers that have carried and commented favorably upon articles released by the Bureau are the *Indianapolis News*, the *New York Times*, the *New York Tribune*, and the *Detroit Free Press*.

V. SUGGESTIONS FOR COMING YEAR:

The Bureau desires the names of more physicians throughout the state who are prepared to give good talks in clear, understandable English to lay organizations.

Applications from more county medical societies for demonstrations of periodic health examinations.

VI. EXPENDITURES OF THE BUREAU FOR 1925-1926:

L. C. Smith Typewriter Co., overhauling machine	\$ 12.50
American Med. Asso., sub. to <i>Hygeia</i> and circulars	7.10
<i>Indianapolis News</i> for furnishing copies to special list	17.50
Extra stenographic services	63.00
Central Press Clipping Service, for clippings	66.66
Expenses for speakers	38.78
Bailey Office Supply, paper and stationery	156.65
Dolbey & Van Ausdall, ink and stencils	48.38
Postage	185.70
American Linen Supply Co., for towel service	14.40
Periodic Health Examination pamphlets	269.10
Miscellaneous office supplies	65.79
Total	\$ 945.56

Salary of executive secretary

Salary of stenographers

Total for salaries

Respectfully submitted,

WM. N. WISHARD, Chairman,

M. N. HADLEY,

S. E. EARP.

REPORT OF COMMITTEE ON MEDICAL EDUCATION

House of Delegates, Indiana State Medical Association:
Gentlemen:

Beginning with 1904 a very definite program of raising standards of medical education in America was initiated. Standardization became the watchword of the day, and it is not surprising that standardization has been carried to the point where it is no longer a real advantage.

The necessity of standardization, however, back in 1904 and in succeeding years, was very great. Medical schools that to the casual observer looked very much alike might in reality, and in fact often did, vary very greatly in curriculum.

Curricula were established without any appreciation of the amount of work which a student could do in a period of nine months. Perfectly impossible schedules were often established. A man ambitious for his subject and a fighter might get for a comparatively minor course as much time as might properly be assigned to

a major subject. For instance, I remember the dean of one of the schools of twenty years ago pleading tearfully for the maintenance of his 500-hour course in *materia medica*. Today not one-tenth of that time is given to this subject, *materia medica*. Instead, much valuable laboratory time is expended on the subject of pharmaco-dynamics, or the experimental determination of the action of drugs.

The Committee of One Hundred went far toward standardizing courses, and further committees of the Association of American Medical Colleges have determined the percentage of the total amount of time which should be given to the work of each major department, and indeed to each major course within a department. For example, anatomy is considered as being entitled to between fourteen and eighteen and a half percent of the 4,000 hours of instruction which is regarded as the ideal instruction time for the four-year medical course. Physiology is assigned from four and a half to six percent of the total time. Bio-chemistry is assigned from three and a half to four and a half percent, etc., etc.

Scores of millions of dollars have been expended in the building of medical plants, and medical schools the country over have enjoyed an incredible period of growth in physical equipment. Their growth in physical equipment has usually outstripped the growth in staff.

The aim during these years has been to turn out better and ever better medical graduates.

Along with the increase in the quality of medical instruction there has been a growing urge for medical students to follow the four years in medicine with an internship. This in some schools is part of the requirement for the medical degree. In other schools, in fact in the vast majority of schools, including our own, the internship is not a part of the requirement for the degree, but in our own school for five years past ninety-five to ninety-eight percent of our students have taken internships voluntarily of from one to three years, prior to entering on the practice of medicine.

At the present time the feeling is growing that standardization has been carried far enough, or indeed too far; that all that can be expected of standardization has been accomplished; and that our next step in improving the quality of the medical profession is to provide graduate instruction for the practitioner.

Some very successful efforts along this line have been made. The July number of our State JOURNAL contains a review of "The Brooklyn Idea."

"The Brooklyn Idea," as clearly stated in this journal, may be briefly reviewed as follows:

First of all, Brooklyn has available for graduate work a home for the Kings County Medical Society; it has splendid hospitals with well-established staffs, some of the members of which hold teaching positions in the Long Island College Hospital.

With this background they have been able to establish a series of courses of two different types—a group of short courses known as extension courses, and a group of longer courses known as intensive courses.

The first type involves eight to twelve hours' work, one to two hours per week. Enrollment is limited to an average of ten and a \$10 fee is charged.

The intensive courses involve from thirty to forty hours' work, four to eight hours per week. Enrollment is limited from four to eight and a fee of \$25-\$50 is charged. Special courses in anatomy and surgery have been given with a fee of \$200.

Each course is under the control of a joint committee of eight, four selected from the Kings County Medical Society with a membership of sixteen hundred, and four from the staff of the Long Island College Hospital, a school about the size of our own. This committee selects the teachers and arranges courses, covering fundamentals. The committee employs a secretary, who

attends to records, correspondence, interviews, enrollments, finances, etc. Eighty percent of the most popular courses have been of the short, 8-10-hour type.

A considerable series of very successful courses has been given over a period of three years. The plan has been tried in other places in New York state with some success.

It is the opinion of the committee in charge of "The Brooklyn Idea" of graduate medical education that the plan will work in any city where there is a well-established hospital with hospital staff and men with the will and ability to impart their knowledge to others.

Some, however, are not so optimistic about this matter. They feel that the success of "The Brooklyn Idea" has been very largely due to the trained teaching staff of the Long Island College Hospital, and they are quite doubtful if the plan will work apart from such a staff.

Another plan which has worked successfully in our own state is carried out by the Muncie Academy of Medicine. They have a weekly program and for the greater part bring in speakers from various places within and without the state to address the Academy.

A third plan has been put into effect during the past year by a number of county medical societies. These societies, Montgomery, Vigo, Jackson, Bartholomew, Jefferson, and Elkhart, have organized for the carrying out of a certain program of graduate instruction. They have invited the faculty of the Indiana University School of Medicine to furnish this program and have assumed the expense of travel of the faculty members collaborating. This plan has worked very successfully in the half dozen counties in which it has been tried. Initiative rests with the local society. The medical faculty appear in the program by invitation of the local society and collaborate with the local society in providing the personnel for the course outlined. In some cases the course consists of a lecture every week for eighteen weeks; in other cases every two weeks for a year.

The Committee on Medical Education heartily commends all efforts toward graduate education in medicine. Programs are still in the experimental stage. "The Brooklyn Idea" could no doubt be carried out in some of the more populous counties of the state. It should be easy to establish such a program in Fort Wayne, where there are a number of men of superior teaching ability. It should be entirely feasible to establish such a program in Evansville, South Bend, and Terre Haute, and by the collaboration of the medical societies of the Calumet district, such a program should be feasible.

In some instances the lack of the advantage enjoyed by Brooklyn of close contact with the medical school might be keenly felt. In such instances certain features of the plan already adopted by a half dozen counties, namely, calling for assistance from the faculty of the state medical school, might be adopted. The plan to be successful involves the development of a teaching group, a group of men who not only understand the subject from the standpoint of their clinical practice, as scores do in a splendid way, but who understand the subject from the standpoint of the literature, and who have the subject matter formulated in such manner as to be able to present it in a way attractive to doctors interested in medical reviews.

Since the short eight or ten-hour courses are most successful, it would seem feasible for say four men in a county society to collaborate in preparation of such a course, each man becoming responsible for two teaching periods.

Let us say the subject of the course is prenatal work. One hour is devoted to considerations of the significance of blood pressure, what it means when normal, abnormal, etc. Another period could be given to measuring pelvis and estimating them; another period might be given to pyelitis, to nephritis, to the toxemias, pregnancy and syphilis, abnormal presentations and their correction;

Cæsarian section might well be the subject of additional hours.

The courses do not and should not lead to specialism, do not advance a doctor one step toward a specialty, but *do* send him forth a better equipped man, able to render greater service in his community, to be a greater credit to his great profession.

The matter of graduate medical education is of very great importance and one that the Indiana State Medical Society might well subsidize during the coming year.

Respectfully submitted,

BURTON D. MYERS, Chairman,
MILES F. PORTER, SR.,
E. F. KISER.

REPORT OF COMMITTEE ON HOSPITAL STANDARDIZATION

House of Delegates, Indiana State Medical Association:

Gentlemen:—The hospital situation in Indiana is steadily improving, not only in the number of hospitals established, but in the personnel of the various visiting staffs, the character of work done in the hospitals and the opportunity for proper training for interns through adequate instruction, by members of the visiting staff as well as the resident staff, general hospital and laboratory equipment. A notable improvement lies in the department of dietetics. Practically all of the larger and better institutions employ specially trained dieticians. X-ray and laboratory service is generally satisfactory.

The latest addition to the ranks of those hospitals accorded interns is St. Joseph's Hospital of South Bend.

Respectfully submitted,

ALBERT E. STERNE, Chairman.

REPORT OF COMMITTEE ON NECROLOGY

House of Delegates, Indiana State Medical Association:

Gentlemen:—No previous year for the last ten or more has seen the number of deaths among the physicians of Indiana that has occurred between the dates of August 15, 1925, and July 30, 1926. In this period our profession lost 101 members. The reason for this acute increase is because many of the number had reached an extreme age during the period. In 1923 we lost 93. In 1924 and the part of 1925 counted we lost 92 and in the year as allotted for 1925 the number dropped to 85. So we had an increase of 16 over 1925.

The youngest death was that of Dr. Reid Ringer, who died in his twenty-eighth year at his home in Monon, Indiana, his death being due to cerebral hemorrhage. The oldest was that of Dr. Daniel A. DeForest, of Boonville, who died of Bright's disease on December 21, 1925.

Of the number 84 were allopaths, 2 physio-medical, none were homeopaths, 2 eclectic, and 13 were not accounted for in school preference.

By months April, 1926, led with a total of 13; November, 1925, was next with 11; March and May, 1926, each had 10; October, 1925, had 9; August, 1925, and July, 1926, each had 8; September, 1925, and January, 1926, each had 7; December, 1925, and February and June of 1926, each 6.

Thirty-four were members of the Indiana State Medical Association and the same thirty-four were members of the American Medical Association. Ten were Fellows of the latter society. Six were World War Veterans, three Spanish-American and four served in the Civil War.

The causes of death were as follows: Nephritis, 31; pneumonia, 13; cerebral hemorrhage, 12; paralysis, 14; influenza, 15; organic heart, 12; accident, drowning 1 and automobile 2; while pernicious anemia claimed 1.

Of the total 17 graduated from the Indiana Medical College, 5 from Kentucky School of Medicine, 2 from

Cincinnati College of Medicine, 1 from the Physio-Medical College of Indiana, 3 from Fort Wayne Medical, 6 from Louisville Medical, 5 from Miami Medical College of Cincinnati, 4 from Central Col. of P. and S. of Indianapolis, 7 from Medical College of Ohio, 2 from University of Illinois, 2 from Northwestern (Chicago), 1 from Charity Hospital College of Cleveland, 1 from University of Iowa, 2 from University of Michigan, 3 from Bellevue, 1 from University of Philadelphia, 3 from Rush, 1 from Willamette University of Oregon, 1 from University of Pennsylvania, 1 from University of Virginia, 1 from Yale, 1 from Starling Medical College of Ohio, 3 from Eclectic of Cincinnati, 1 from Pulte Medical of Cincinnati, 1 from Beach Medical Institute of Indianapolis, 1 from Curtis Physio-Medical of Marion, Indiana, 1 from Baltimore Medical, 1 from University of Edinburgh, 1 from St. Louis College of P. and S., 1 from Eclectic of Indiana, and the remainder graduated from schools which could not be ascertained by the committee.

One colored physician was numbered among the list. None were women.

The combined age of these doctors was 6,797 years. The average age was a little more than sixty-five and one-fourth years, being a little less than a year of increased average age over last year.

The deaths were in the following age periods: In the twenty-year decade there were 2 deaths; in thirty, 1; in forty, 9; in fifty, 21; in sixty, 25; in seventy, 29; in eighty, 13, while ninety had 1 only.

It would appear from this report that the longevity of physicians is increasing. This fact may prove comforting to those now in the practice.

Respectfully submitted,

GEORGE G. RICHARDSON, Chairman.

REPORT OF COMMITTEE ON INDUSTRIAL AND CIVIC RELATIONS

House of Delegates, Indiana State Medical Association:
Gentlemen:

I. INTRODUCTION.

Last year your committee broke new ground. This new work of your committee took two directions:

(1) It acted as a referee in cases of dispute as to medical services rendered and fees charged in industrial cases.

(2) It gathered information from all parties interested in the working of the compensation law.

In 1925-1926 it is continuing the work started last year, carrying on its activities from the information gained and the judgments formed last year.

II. ACCOMPLISHMENTS:

(1) Your committee has functioned successfully in settling every dispute referred to it to the apparent satisfaction of both litigants.

(2) In carrying out the general line of committee work based on information gained and judgments formed last year, your committee had conferences with the governor of the state, chairman of the Industrial Board of Indiana, with the Indiana Casualty Adjusters Association, and a special standing committee representing that body. Besides these meetings, the committee held its customary executive sessions.

(3) The mutual confidence inspired by these interviews we believe has been of general benefit to the profession. The atmosphere of mutual suspicion which has clouded the issue in disputes upon the compensation law as it affected the profession in previous years was to some extent dissipated.

(4) Last year your committee sought information along compensation lines from organized labor, at the annual convention of the Indiana State Federation of Labor at Terre Haute. This year it has sought the viewpoint of the insurance carriers, representing the employers, as expressed by the Indiana Casualty Adjusters Association. As the result of one member of your

committee appearing before the Indiana Casualty Adjusters Association, a special committee of the Adjusters Association was appointed to meet with your committee. A brief summary of this joint meeting follows.

III. REPORT OF THE JOINT MEETING WITH THE SPECIAL COMMITTEE REPRESENTING THE INDIANA CASUALTY ADJUSTERS ASSOCIATION AND YOUR COMMITTEE HELD FRIDAY, APRIL 9, 1926:

Purpose of Meeting. The meeting was held in order that a frank discussion might take place upon those points of the Compensation Law which affect insurance carriers and members of the medical profession, in an attempt to lessen the number of controversies arising from industrial medical work.

Results of Discussion. (1) A letter should be sent to the chairman of the Industrial Board or a delegation should call upon the Board and ask that the members of the board avail themselves more frequently of impartial medical opinion as provided by law in those cases where contradictory evidence is given by members of the medical profession, one member representing the employer and insurance carrier, and the other member the employee. The cost of obtaining this opinion is to be assumed by the insurance carrier.

Cases often arise where an injured employee is sent to the physician by an employer. The physician examines the injured employee, but on sending the bill to the employer he is told that the insurance company by whom he is protected will pay the bill. When the bill is presented to the insurance company, the physician receives the answer that these charges are not covered by the insurance law.

Discussion developed that such cases of passing the buck usually came from misunderstandings.

The Adjusters Committee agreed to bring this before their association with a recommendation for its acceptance. The Industrial and Civic Relations Committee were to call the attention of the physicians of the State Association to the absolute necessity for early and adequate reports. This the Adjusters felt would go a long way to eliminate misunderstandings referred to above.

(2) Members of the Adjusters Association should be advised that when a case of an alleged injury is sent to a physician by the employer and examination discloses the case is one which is not to be accepted as coming under the compensation act; that if in such case the physician makes an examination and submits the result of such an examination as a report to either the employer or insurance carrier, it is quite proper that he expect to be paid for the examination. The insurance carrier necessarily must depend upon the physician's examination as to the nature of the complaint and if not willing to pay for the same the former is not entitled to a report as to the findings.

(3) The question as to limitation of the legal time limit that a man is to receive medical service was discussed. Special emphasis was placed on the fact that when an extension of time limit from thirty days to sixty days was required that physicians doing industrial medical work should make a report to the company *prior* to the end of the thirty days recommending the extension of the time for treatment. Practice has shown that in nearly every case where this is done the adjusters are glad to give the authority for the extension of time for treatment.

(4) Fee schedules. Although one of the representatives for the adjusters spoke against ninety-two separate fee schedules for the counties of the state, the Industrial and Civic Relations Committee of the State Association has drawn up a letter asking each county for a schedule of the fees prevailing in that community.

(5) Chief cause of complaint. One of the chief causes of complaint by the adjusters is the fact that a doctor who is not accustomed to doing industrial work often is likely to charge up a great many more dressings than might be thought to be necessary. This mul-

tiplicity of dressings is one of the chief complaints from the adjuster's standpoint.

(6) Perhaps the most important suggestion of the meeting was the proposal on the part of the adjusters that the members of the Committee on Industrial and Civic Relations of the Indiana State Medical Association sit as a board of referees to adjust disputes that may arise between the adjusters and the physicians. Both the adjusters and the physicians could bring all disputes before the committee. The representatives of the insurance carriers felt that they would be able to get the consent from a large percentage of the companies to abide by the findings of the committee acting as a board of referees.

(7) All who attended the meeting agreed that this joint committee should continue in existence and should meet from time to time in order to talk over various questions of interest to both the adjusters and the physicians.

IV COMMENT ON REPORT OF JOINT COMMITTEE AND GENERAL CONCLUSIONS OF YOUR COMMITTEE

(1) Your committee wishes to emphasize the necessity for prompt preliminary reports and early requests for extension of time of treatment when needed if we are to avoid friction between physicians and insurance carriers. Much of the trouble arises from the fact that many physicians fail to realize the importance of an adequate report timely made. Physicians doing a large amount of industrial work give that service to insurance carriers but a doctor handling an occasional industrial case not having that point sufficiently stressed often fails to supply the information to the insurance carrier which is absolutely necessary to justify the company in paying the compensation due the injured as well as the fees due the doctor himself. This is the basis of almost all friction between insurance carriers and physicians.

(2) Although the committee wrote letters to every county society of the state asking for fee schedules current in its county and THE JOURNAL carried a similar request in the May issue, we have not been favored with a sufficient number of answers to justify any optimism.

(3) As evidenced by paragraph 6 of the joint committee report, the whole result in making these contacts has been to place the medical profession in a strategic position of nonpartisanship in industrial disputes. For evidence of this we can point to the desire of the Adjusters Association to take disputed points up with a committee of physicians rather than resort to legal channels.

Respectfully submitted,

F. S. CROCKETT, Lafayette, Chairman.
A. F. KNOFEL, Terre Haute,
H. W. MACDONALD, Newcastle,
KARL M. KOONS, Indianapolis,
W. H. KENNEDY, Indianapolis.

EXHIBITORS AT WEST BADEN SESSION

AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL.

The American Medical Association exhibit will feature *Hygeia*, the official publication of the A. M. A. on individual and community health. This most commendable magazine has rapidly come to the front as the leading health magazine, and it should be in the office of every physician. Other publications from the American Medical Association Press will also be exhibited and those members of the State Medical Association in good standing who have not yet affiliated may become Fellows of the American Medical Association.

WM. H. ARMSTRONG CO., INDIANAPOLIS, INDIANA.

This exhibit will feature surgical and medical supplies and equipment. It will include sterilizers, furniture, instruments, electro-therapy equipment, laboratory supplies and equipment, and on prescription furnishing, from stock or on special order, for the patients, trusses, abdom-

inal supporters, braces, artificial limbs, and all orthopedic appliances. S. H. Greenburg and K. E. Hoy, well known to the Indiana profession, will be in charge.

FRANK S. BETZ COMPANY, HAMMOND, INDIANA.

This exhibit of the Frank S. Betz Company will contain many interesting items including a splendid new table which has just been completed. This table is designed particularly for general practice and will accommodate itself to a wide variety of procedures in examining, treating and operating. A large line of surgical instruments and sundries will be shown in this exhibit, including a special display of luer pattern all-glass syringes at reasonable prices. F. H. Warman, in charge of the Betz exhibit, will be glad to welcome friends of the firm, old or new.

W. A. BAUM CO., INC., NEW YORK.

The Baumanometer exhibit will be in Booth No. 14. How the lay public has reacted to the series of advertisements on blood pressure published in *Hygeia* by the W. A. Baum Company, Inc., will be explained and the results from this effort to emphasize the importance of health examination, the danger of worry and self-treatment and the folly of the patient who makes blood pressure a fad will be discussed with visitors to the exhibit. A new development of importance will be shown for the first time.

P. BLAKISTON'S SON & CO., PHILADELPHIA, PA.

This space, which will be in charge of H. T. Tudor, will show several new and especially interesting books which will deserve the careful consideration of every physician at the convention. Among these will be the new Deaver "Surgical Anatomy" in three volumes, Riehl and Von Zumbusch' "Atlas of Skin Diseases," Greene's "Medical Diagnosis," Edgar-Vaux' "Obstetrics," Matthes' "Differential Diagnosis," a new Potter "Therapeutics, Materia Medica and Pharmacy," conforming to the U. S. P. X., Fulkerson's "Gynecologic Urology," Enfield's "Radiography," Strecker and Ebaugh's "Clinical Psychiatry," and an entirely new and especially complete Medical Dictionary and many others. Every visitor should give at least one-half an hour to this exhibit.

CAMERON'S SURGICAL SPECIALTY COMPANY, CHICAGO, ILLINOIS.

The exhibit of Cameron's Surgical Specialty Company will be of interest to every progressive medical practitioner. Complete clinical demonstrations of the value of transillumination, direct illumination and the electrocautery as applied to all phases of minor and major diagnostic, operative and therapeutic procedure, will be given throughout the meeting by trained diagnostic clinicians.

DESHELL LABORATORIES, INC., CHICAGO, ILLINOIS.

These laboratories will exhibit their various types of Petrolagar, the intestinal lubricant, which has been so generally adopted by the profession in connection with the "habit time" treatment of constipation. The representative in charge of the exhibit will be Mr. Denny, who will be glad to explain to visiting physicians the technique of "habit time," the application of Petrolagar in "habit time" and the place of emulsified oil in intestinal lubrication.

DEPUY MANUFACTURING COMPANY, WARSAW, INDIANA.

DePuy Manufacturing Company will exhibit at Booth No. 25 a complete line of DePuy fracture appliances. Mr. Zimmer and Mr. Leiter will be in charge and will be pleased to show the various types of splints which the salesmen are unable to carry in their regular sample lines to your individual offices. DePuy perforated aluminum splints are cool, comfortable, and sanitary. They will help to reduce fracture worries to a minimum because they permit of a clear view of the fracture with fluoroscope after reduction and at the same time satisfy the most exacting surgeons for complete immobilization under the severest of tests. Let us show you how you

can make DePuy splints work for you and meet the requirements of each individual patient.

THE DRY MILK COMPANY, NEW YORK.

The Dry Milk Company, 15 Park Row, New York, will exhibit at Booth No. 83 their product DRYCO, a special milk for babies, and PROTO-LAC, a calcium caseinate. As usual, they will have an interesting and useful souvenir for their medical friends and trust that all of them who attend the convention will find an opportunity to call at their booth. They have, also, some attractive posters, printed in colors, of the "Dryco Baby," which members of the families of the doctors will admire very much. These will be mailed to their homes upon request. Literature giving full data regarding the use of Dryco and Protolac will be distributed.

H. G. FISCHER & CO., INC., CHICAGO, ILLINOIS.

This company will have a splendid complete exhibit of the very latest developments in electro-physiotherapeutic equipment in Booth No. 13. Especial attention is called to the two very radical departures from customary diathermy machine construction, as embodied in their two latest units. We will also exhibit the very latest in quartz lamp apparatus, radiant therapy lamps, wave generators, and a wealth of new types of electrodes and applicators for the various electrical modalities.

THE FOREGGER COMPANY, INC., NEW YORK.

This company, which manufactures the well-known Gwathmey Anesthesia Apparatus, will feature several new specialties including the Guedel Oxygen Meter, a device to make oxygen therapy practical and its administration reliable—and, the Metric Gas Machine, which is the first anesthetic gas machine to measure accurately the amount of each gas fed to the patient, and, therefore, the only machine that enables the anesthetist to work with "percentage." A cordial invitation is extended to visit this exhibit at Booth No. 18, which will be in charge of the company's representative, Irving J. Scheer.

HAROLD SURGICAL CORPORATION, NEW YORK.

The Harold Surgical Corporation, which is occupying Booths 71 and 74, is one of the few supply houses from whom the doctor can get all of his supplies. This concern carries complete stocks of gauze, bandages, cotton, office and operating room clothing, instruments of all kinds, sterilizers, furniture, syringes, needles, sutures, electrical therapeutic apparatus (including all types of lamps), tablets and other medicine, intravenous and intra-muscular medicants, etc., etc. The corporation is now occupying its new quarters at 204-6-8 East 23rd St., New York City, and is now offering twenty-four-hour service on all orders. During this convention a useful souvenir will be given to all those who register.

HANOVIA CHEMICAL AND MANUFACTURING COMPANY, NEWARK, NEW JERSEY.

The Hanovia Chemical and Manufacturing Company of Newark, New Jersey, cordially invites the members of the profession attending to visit their booth, No. 84, and see at first hand their standard quartz lamps, the Alpine Sun, Kromayer and Luxor. These lamps are not unknown to the medical profession for with them quartz light originated in this country. They will also feature a new addition to the family, the Sollux, a radiant heat lamp, of both the floor stand and desk type. Experienced members of their staff will be in attendance at the booth to answer any questions and be of service to you. Literature will also be available.

HORLICK'S MALTED MILK CORPORATION, RACINE, WIS.

Horlick's Malted Milk Corporation will be represented, as usual, at the Indiana State Medical Association convention at West Baden, and invites the attention of all present to its Booth No. 24, where Horlick's, the original malted milk, Horlick's malted milk lunch tablets and Horlick's food will be displayed. The representative in attendance will explain the uses and advantages of these products to the medical profession, and will welcome their inquiries and discussions. Samples and literature

will be supplied, and the Dunmore electric mixer will be demonstrated.

PAUL E. JOHNSON, INC., CHICAGO.

Universal Therapeutic Lamps shown in Booth 12 by Paul E. Johnson, Inc., are claimed to be the most complete assembly ever offered by one manufacturer. The line embraces several models of mercury quartz and carbon arc ultra violet lamps; also large and small infrared radiant light and heat (deep therapy lamps). The lamps embody patented and exclusive features which give ease of operation and clinical advantages appreciated by all who use them, and the line is correctly priced. Be sure to see them.

MEAD JOHNSON & COMPANY, EVANSVILLE, INDIANA.

In Booths Nos. 37 and 38 Mead Johnson & Company will display a full assortment of infant diet materials, covering every phase useful to the pediatrician and general practitioner, and needed by both well and sick infants. A list of these infant diet materials is as follows: Mead's Dextri-Maltose, Mead's Standardized Cod Liver Oil, Mead's Casein, Mead's Powdered Protein Milk, Mead's Powdered Lactic Acid Milk, Mead's Powdered Milks. All of these are standard products which have been very carefully prepared on the premises of Mead Johnson & Company, especially for infant feeding. The physician's time will be well spent by a visit to their booth.

THE MEDICAL PROTECTIVE COMPANY, FORT WAYNE, INDIANA.

In exhibit space No. 22, the Medical Protective Company will have in attendance its representative, J. D. O'Meara, to confer with the contract holders of the company or any other member of the profession relative to the liabilities accruing to the profession; or to explain any point in the service and method of the company. Any doctor is perfectly welcome to stop and propound any question upon the subject of malpractice insurance and professional liability that he may so desire.

MELLIN'S FOOD COMPANY, BOSTON, MASS.

Mellin's Food Company has space No. 49. Nutrition is always a subject worthy of serious discussion and there are many details in relation to the use of Mellin's Food which if thoroughly understood by physicians would assist them materially in preparing nourishment for babies, for children and for adults. It is the purpose of the representatives in charge of the Mellin's Food exhibit to make these details clear to all physicians who are interested and to whom a cordial invitation is extended to visit this exhibit.

MERRELL-SOULE COMPANY, SYRACUSE, NEW YORK.

Merrell-Soule Company will exhibit their complete line of dehydrated milk products, including Klim, Merrell-Soule Powdered Protein Milk, Merrell-Soule Powdered Whole Lactic Acid Milk, Merrell-Soule Powdered Skimmed Milk, as well as their carbohydrates, Vi-Mal-Dex Lemon and Vi-Mal-Dex Orange. Klim will be served to visiting doctors and a moving picture showing the production of these products will be in constant operation. Our Mr. Henry A. Doniat will be in charge of this meeting.

MOUNTAIN VALLEY WATER COMPANY, HOT SPRINGS, ARKANSAS.

Mountain Valley Water, fresh from Hot Springs, Arkansas, will be at the Technical Exhibit of the state convention and everyone is urged to stop in for a refreshing drink. J. H. Hornstein, territorial manager for the United States, will be the chief dispenser of the water and clinical data. His acquaintance with the product and the Mountain Valley Springs Company's services to physicians and their patients puts him in a position to answer your questions intelligently. You are invited to make the Mountain Valley booth your headquarters during your stay at West Baden.

V. MUELLER & COMPANY, CHICAGO, ILLINOIS.

An extensive collection of instruments and apparatus of their own manufacture as well as many important new items from foreign medical centers will be demonstrated by V. Mueller & Company. Among the domestic items are Friend's liver forceps, DeLee's obstetric and cesarian section instruments, miniature headlamps, etc. Foreign items are: New trephining sets, several new stomach and intestinal clamps, new bone banding and metal suture sets, etc.

PFAU'S AMERICAN INSTRUMENT CO., NEW YORK CITY.

New anatomical specimens and teaching material as well as the latest ear, nose, throat instruments and specialties for plastic surgery and nasal correction will be on display at this booth, No. 11. Special features will be a set of specimens showing Dr. Halle's various sinus operations and different kinds of mastoid operations, tanned nose specimen with movable septum and with new arrangement of the section; Atkinson's latest Directoscope, the latest patterns of Pfau's very well-known cutting and punching instruments.

SANITARIUM AND HOSPITAL EQUIPMENT COMPANY, BATTLE CREEK, MICHIGAN.

One of the most interesting technical exhibits at the state convention this year will be that of the Sanitarium and Hospital Equipment Company of Battle Creek, Michigan. Among the unique physical therapy appliances displayed by this company will be the famous mechanical horse which became famous when President Coolidge took up this form of exercise in the White House. The oscillo-manipulator for applying body massage mechanically is also one of the new features. Other appliances listed for display are the vibratory chair, electric bath cabinets, solar arc lamp, the vee-lite (infra-red) automatic exerciser and hydrotherapy apparatus for institutions. The exhibit will occupy booths 2, 3, and 4, and will be in charge of Richard H. Wentworth, vice-president of the company, and several assistants.

SHARP & SMITH, CHICAGO, ILLINOIS.

Sharp & Smith of Chicago will have a very attractive exhibit, consisting of the latest and most improved patterns of surgical instruments. They respectfully invite the doctors attending the Indiana state meeting to visit their booth, which they feel confident the doctors will find very interesting.

E. R. SQUIBB & SONS, NEW YORK CITY.

This company will have an attractive booth at the annual state convention at West Baden in September. The products to be featured include insulin, arsenicals, cod liver oil, authorized scarlet fever products, produced under the patents granted Drs. George F. and Gladys H. Dick. The representatives of the house of Squibb will be in attendance at the booth, and will be pleased to welcome visitors and take pleasure in explaining the merits of the various products. Mr. J. Gilbert George will have charge of the exhibit.

SWAN-MYERS COMPANY, INDIANAPOLIS.

The exhibit of the Swan-Myers Company Laboratories will feature the ampoules of dextrose solution. With these ampoules, the physicians and hospitals may keep on hand the stable, sterile solution of this natural sugar of the blood, to be used intravenously in the toxemias and vomiting of pregnancy, and post-operative acidosis, the acidosis of hyperthyroidism and other conditions in which the solution is indicated. While the hay fever season will be practically over at the time of the meeting, special attention will be given to the many pollen extracts which are used in the study of the treatment of hay fever. To make this conference especially worth-while, the exhibit will be accompanied by R. M. Cain, president of the company, and Edgar B. Carter, director of the biological laboratories.

TOLEDO TECHNICAL APPLIANCE CO., TOLEDO, OHIO.

In space 39 the Toledo Technical Appliance Company will exhibit the well-known line of McKesson appliances,

consisting of gas oxygen anesthetic machines, the metabolism for basal metabolism estimations, and surgical and T. & A. pumps. They will be glad to show anything new that has developed in their line, and valuable information can always be obtained from their representative. Reprints of original papers will be given to those interested. The exhibit will be in charge of W. H. Arnold.

VICTOR X-RAY CORPORATION, CHICAGO.

In view of the rapidly increasing use of physical therapy, physicians will find the exhibit of the Victor X-Ray Corporation most interesting. Here will be displayed the latest Victor electro-therapeutic equipment. Among the apparatus shown will be the Victor portable variable frequency diathermy apparatus, with a capacity of 4,000 ma. over a selective frequency range of from 500 to 1,000 kilocycles; the Wantz multiple wave generator, for the production of galvanic, surging galvanic and sinusoidal currents; the Victor air and water-cooled ultra violet quartz lamps, and the Victor phototherapy lamps, portable and office types. Trained representatives in charge of the Victor booths will cheerfully assist you in solving your technical problems involving either physical therapy or x-ray apparatus.

WAYNE PHARMACAL COMPANY, FORT WAYNE, INDIANA.

This company will display a pharmaceutical line including Mulford, Sharp & Dohme, Parke Davis, and Wm. S. Merrell pharmaceuticals. A large and complete line of surgical instruments also will be displayed, including the Burdick equipment line of quartz lights, infra-red lamps, along with bath equipment. With this line will be displayed equipment manufactured by the Liebel-Flarsheim Company, such as dynelectron, diathermy machines, x-ray and air and suction apparatus.

WHITE-HAINES OPTICAL CO., COLUMBUS, OHIO.

The White-Haines Optical Co. will feature in their exhibit the latest developments in scientific instruments, the hand slit lamp, Clason visual acuity meter, Bausch & Lomb binocular microscope with slit lamp attachment and various other instruments. In ophthalmic lenses they will feature the Punktal, soft-lite, and the Unisite bifocal. The Unisite bifocal eliminates the jump so noticeable in various forms of bifocal lenses, giving the wearer comfortable vision. The exhibit will be in charge of Donald R. Rowles, manager of sales of White-Haines, Indianapolis.

THE COLUMBUS PHARMACAL CO., COLUMBUS, OHIO.

Exhibit booth 20 will be in charge of Samuel H. Gray, showing the products of the Columbus Pharmacal Company, Columbus, Ohio. Their manufactured products consist of pharmaceuticals, specialties, U. S. P. & N. F. products, elixirs, syrups, compressed tablets, both coated and uncoated, filled capsules, ointments, suppositories, effervescent salts, and an extensive line of ampoules, etc. While attending the convention stop at booth 20 and give it the once-over, and meet the representatives from this neighboring Ohio firm.

PITMAN-MOORE COMPANY, INDIANAPOLIS, INDIANA.

The exhibit of the Pitman-Moore Company will be in charge of Mr. Stewart W. Ruch. The following Pitman-Moore products will be featured in the display:

Siomine: Organic compound of iodine and methenamine, containing 78.5 percent available iodine. Marketed in capsules containing half grain, 1 grain, 2 grains and 5 grains. Useful wherever iodine is indicated internally; does not cause gastric disturbance.

THE LABORATORY PRODUCTS COMPANY, CLEVELAND.

The Laboratory Products Company will exhibit the following products at the Indiana State Medical Association convention: S. M. A., a product which resembles breast milk, both physically and chemically, and is used for feeding infants deprived of breast milk. S. M. A. gives excellent nutritional results in most cases. It requires no modification and is simple to prepare. It

prevents rickets and spasmophilia. Protein S. M. A. (acidulated) is a modified S. M. A. for special uses, such as diarrhea, malnutrition, and for marasmic, premature and other infants requiring a high protein intake. This product is both anti-rachitic and anti-scorbutic. MAX WOCKER AND SON COMPANY, CINCINNATI, OHIO. CENTRAL PHARMACAL COMPANY, SEYMOUR, INDIANA.

LIST OF PRESIDENTS OF THE INDIANA STATE MEDICAL ASSOCIATION SINCE ITS ORGANIZATION

<i>Names and Residences</i>	<i>Elected</i>	<i>Served</i>
Livingston Dunlap, Indianapolis.....	1849	1849
William T. S. Cornett, Versailles.....	1849	1850
Asahel Clapp, New Albany.....	1850	1851
George W. Mears, Indianapolis.....	1851	1852
Jeremiah H. Brower, Lawrenceburg.....	1852	1853
Elizur H. Deming, Lafayette.....	1853	1854
Madison J. Bray, Evansville.....	1854	1855
William Lomax, Marion.....	1855	1856
Daniel Meeker, Laporte.....	1856	1857
Talbott Bullard, Indianapolis.....	1857	1858
Nathan Johnson, Cambridge City.....	1858	1859
David Hutchinson, Mooresville.....	1859	1860
Benjamin S. Woodworth, Fort Wayne.....	1860	1861
Theophilus Parvin, Indianapolis.....	1861	1862
James F. Hibberd, Richmond.....	1862	1863
John Sloan, New Albany.....	1863	1864
John Moffett (acting), Rushville.....	1864	1864
Samuel M. Linton, Columbus.....	1864	1864
Myron H. Harding, Lawrenceburg.....	1865	1865
Wilson Lockhart (acting), Danville.....	1865	1866
Vierling Kersey, Richmond.....	1866	1867
John S. Bobbs, Indianapolis.....	1867	1868
Nathaniel Field, Jeffersonville.....	1868	1869
George Sutton, Aurora.....	1869	1870
Robert N. Todd, Indianapolis.....	1870	1871
Henry P. Ayres, Fort Wayne.....	1871	1872
Joel Pennington, Milton.....	1872	1873
Isaac Casselberry, Evansville.....	1873	1874
Wilson Hobbs, Knightstown.....	1873	1874
Richard E. Haughton, Richmond.....	1874	1875
John H. Helm, Peru.....	1875	1876
Samuel S. Boyd, Dublin.....	1876	1877
Luther D. Waterman, Indianapolis.....	1877	1878
Louis Humphreys, South Bend.....	1878	1879
Benj. Newland (acting), Bedford (v. p.).....	1878	1879
Jacob R. Weist, Richmond.....	1879	1880
Thomas B. Harvey, Indianapolis.....	1880	1881
Marshall Sexton, Rushville.....	1881	1882
William H. Bell, Logansport.....	1882	1883
Samuel E. Munford, Princeton.....	1883	1884
James H. Woodburn, Indianapolis.....	1884	1885
James S. Gregg, Fort Wayne.....	1885	1886
General W. H. Kemper, Muncie.....	1886	1887
Samuel H. Charlton, Seymour.....	1887	1888
William H. Wishard, Indianapolis.....	1888	1889
James D. Gatch, Lawrenceburg.....	1889	1890
Gonsolvo C. Smythe, Greencastle.....	1890	1891
Edwin Walker, Evansville.....	1891	1892
George F. Beasley, Lafayette.....	1892	1893
Charles A. Daugherty, South Bend.....	1893	1894
Elijah S. Elder, Indianapolis.....	1894	1895
Charles S. Bond (acting), Richmond.....	1894	1895
Miles F. Porter, Fort Wayne.....	1895	1896
James H. Ford, Wabash.....	1896	1897
William N. Wishard, Indianapolis.....	1897	1898
John C. Sexton, Rushville.....	1898	1899
Walker Schell, Terre Haute.....	1899	1900
George W. McCaskey, Fort Wayne.....	1900	1901
Alcembert W. Brayton, Indianapolis.....	1901	1902
John B. Berteling, South Bend.....	1902	1903

<i>Names and Residences</i>	<i>Elected</i>	<i>Served</i>
Jonas Stewart, Anderson.....	1903	1904
George T. MacCoy, Columbus.....	1904	1905
George H. Grant, Richmond.....	1905	1906
George J. Cook, Indianapolis.....	1906	1907
David C. Peyton, Jeffersonville.....	1907	1908
George D. Kahlo, French Lick.....	1908	1909
Thomas C. Kennedy, Shelbyville.....	1909	1910
Frederic C. Heath, Indianapolis.....	1910	1911
William F. Howat, Hammond.....	1911	1912
A. C. Kimberlin, Indianapolis.....	1912	1913
John P. Salb, Jasper.....	1913	1914
Frank B. Wynn, Indianapolis.....	1914	1915
George F. Keiper, Lafayette.....	1915	1916
John H. Oliver, Indianapolis.....	1916	1917
Joseph Rilus Eastman, Indianapolis.....	1917	1918
William H. Stemm, Vernon.....	1918	1919
Charles H. McCully, Logansport.....	1919	1920
David Ross, Indianapolis.....	1920	1921
William R. Davidson, Evansville.....	1921	1922
Charles H. Good, Huntington.....	1922	1923
Samuel E. Earp, Indianapolis.....	1923	1924
E. M. Shanklin, Hammond.....	1924	1925
C. N. Combs, Terre Haute.....	1925	1926

CONSTITUTION AND BY-LAWS OF THE INDIANA STATE MEDICAL ASSOCIATION*

ARTICLE I.—NAME OF THE ASSOCIATION

The name and title of this organization shall be the Indiana State Medical Association.

ARTICLE II.—PURPOSES OF THE ASSOCIATION

The purposes of this Association shall be to federate and bring into one compact organization the entire medical profession of the State of Indiana, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine, and public health, so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III.—COMPONENT SOCIETIES

Component Societies shall consist of those county medical societies which hold charters from this Association.

ARTICLE IV.—COMPOSITION OF THE ASSOCIATION

SECTION 1.—This Association shall consist of Members, Delegates, Guests, and Associate and Honorary Members.

SEC. 2.—*Members*.—The members of this Association shall be the members of the component county medical societies.

SEC. 3.—*Delegates*.—Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective component societies in the House of Delegates of this Association.

SEC. 4.—*Associate Members*.—Members of the Indiana State Dental Association in good standing are, by virtue of their membership therein, made associate members of the Indiana State Medical Association.

SEC. 5.—*Honorary Members*.—Honorary members shall consist of representative teachers and students of science allied to medicine, and of physicians and surgeons of distinction not members of the Indiana State Medical

*Revised Constitution and By-Laws proposed by the Committee for adoption at the Annual Session held in Marion, September 23-25, 1925, and final action upon which was postponed until the annual session to be held in West Baden, September, 1926.

Association, who may by vote of the House of Delegates be elected to honorary membership.

SEC. 6.—*Guests*.—Any distinguished physician not a resident of this state who is a member of his own State Association may become a guest during any Annual Session on invitation of the officers of this Association, and shall be accorded the privilege of participating in all of the scientific work for that session.

ARTICLE V.—HOUSE OF DELEGATES

The House of Delegates shall be the legislative and business body of the Association, and shall consist of (1) Delegates elected by the component county societies; (2) the Councilors; (3) the ex-Presidents of the Indiana State Medical Association; and (4) *ex officio*, the President, the Executive Secretary, the Treasurer, and the Editor of THE JOURNAL of this Association, without power to vote, except in case of a tie vote when the president shall cast the deciding vote.

ARTICLE VI.—COUNCIL

The Council shall consist of (1) the Councilors; and (2) *ex officio* the President, Executive Secretary, Treasurer, and Editor of THE JOURNAL. Besides its duties mentioned in the By-Laws, it shall constitute the Board of Trustees of this organization, having full charge and control of all the property of the Association. It shall have full authority and power of the House of Delegates between sessions of the House of Delegates, and at all times shall be the finance committee of the Association. Five Councilors shall constitute a quorum.

ARTICLE VII.—SECTIONS AND DISTRICT SOCIETIES

The House of Delegates may provide for a division of the scientific work of the Association into appropriate Sections, and for the organization of such Councilor District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

ARTICLE VIII.—SESSIONS AND MEETINGS

SECTION 1.—The Association shall hold an Annual Session during which there shall be held daily general meetings, and such section meetings as may be provided for, all of which shall be open to all registered members and guests.

SEC. 2.—The time and place for holding each annual session shall be fixed by the House of Delegates at the preceding annual session.

SEC. 3.—Special sessions of either the Association or the House of Delegates shall be called by the President on petition of twenty delegates or fifty members.

ARTICLE IX.—OFFICERS

SECTION 1.—The officers of this Association shall be a President, a Vice-President, an Executive Secretary, a Treasurer, and thirteen Councilors.

SEC. 2.—The officers, except the Councilors and the Executive Secretary, whose election has been provided for hereinafter, shall be elected annually. The terms of elected Councilors shall be for three years, and approximately one-third of the number shall be elected annually. All of these officers shall serve until their successors are elected and installed.

SEC. 3.—The officers of this Association shall be elected by the House of Delegates on the morning of the last day of the Annual Session, but no delegate shall be eligible to any office named in the preceding section, except that of Councilor, and no person shall be elected to any such office who is not in attendance on that Annual Session, and who has not been a member of the Association for the preceding two years.

SEC. 4.—The Councilors shall be elected by the respective district societies, providing that if any district shall exist without a society, or if the District Society fails to meet and elect its councilor and notify the House of Delegates before or at the time of the annual session, the Councilor for such a district shall be elected by the House of Delegates. Provided further, that if a Councilor district society fails to meet and elect its

Councilor, the Councilor for that district shall be elected by the House of Delegates.

ARTICLE X.—RECIPROCITY OF MEMBERSHIP WITH OTHER STATE SOCIETIES

In order to broaden professional fellowship this Association is ready to arrange with other State Medical Associations for an interchange of certificates of membership, so that members moving from one state to another may avoid the formality of re-election.

ARTICLE XI.—FUNDS AND EXPENSES

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates. Funds also may be raised by voluntary contributions, from the Association's publications, and in any other manner approved by the House of Delegates. Funds may be appropriated by the House of Delegates to defray the expenses of the Association, for publication, and for such other purposes as will promote the welfare of the profession. All motions and resolutions appropriating funds must be referred to the Council for approval before final action is taken thereon.

ARTICLE XII.—REFERENDUM

SECTION 1.—A General Meeting of the Association may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered the House of Delegates shall submit such question to the members of the Association, who may vote by mail or in person, and if the members voting shall comprise a majority of all the members of the Association, a majority of such vote shall determine the question and be binding on the House of Delegates.

SEC. 2.—The House of Delegates may, by a two-thirds vote of its own members, submit any question before it to a general referendum, as provided in the preceding section, and the result shall be binding on the House of Delegates.

ARTICLE XIII.—THE SEAL

The Association shall have a common Seal, with power to break, change or renew the same at pleasure.

ARTICLE XIV.—AMENDMENTS

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the Delegates present at any Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been published twice during the year in THE JOURNAL of this Association.

BY-LAWS

CHAPTER I.—MEMBERSHIP

SECTION 1.—Any physician who is a member in good standing of a component county society and who has paid to this Association his annual dues is a member in good standing of the Indiana State Medical Association.

SEC. 2.—No person who is under sentence of suspension or expulsion from a component society, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

SEC. 3.—Each member in attendance at the Annual Session shall register by indicating the component society of which he is a member. When his right to membership has been verified, by reference to the roster of his society, he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that session. No member shall take part in any of the proceedings of an Annual Session until he has complied with the provisions of this section.

CHAPTER II.—GENERAL MEETINGS

SECTION 1.—All registered members may attend and participate in the proceedings and discussions of the General Meetings and the meetings of the Sections. The

General Meetings shall be presided over by the President or by the Vice-President, and before them shall be delivered the address of the President and the orations, unless the Committee on Scientific Work, with the sanction and approval of the officers, shall arrange otherwise.

SEC. 2.—The General or Section Meetings may recommend to the House of Delegates the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and public.

SEC. 3.—No address or paper before the Association, except those of the President and orators, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject, except by unanimous consent, except the first discussant, who shall be allowed ten minutes.

SEC. 4.—All papers read before the Association or any of the Sections shall become its property and shall not be published in any but the official publications of this Association except by consent of the officers and the Editor of THE JOURNAL of this Association. Each paper shall be deposited with the Executive Secretary when read.

CHAPTER III.—SECTIONS

SECTION 1.—During the annual session, the Association may meet in the following Sections:

- a. Surgical,
- b. Medical,
- c. Eye, Ear, Nose and Throat.
- d. Any other Sections that hereafter may be provided for by the House of Delegates.

SEC. 2.—The officers of each Section shall be a Chairman, a Vice-Chairman, and a Secretary, and they shall preside over the meetings of the Sections.

SEC. 3.—The election of officers of the Sections shall be the first order of business of the last meeting of the Sections during the annual session.

SEC. 4.—No Section meeting shall be allowed to conflict with a general meeting.

CHAPTER IV.—HOUSE OF DELEGATES

SECTION 1.—The House of Delegates shall meet the day before that fixed as the first day for the scientific meetings of the Annual Session. It may adjourn from time to time as may be necessary to complete its business, provided that its hours shall conflict as little as possible with the General or Section Meetings. It shall meet on the morning of the last day of the Annual Session for the election of officers for the ensuing year, and for the completion of any business previously introduced. The order of business shall be arranged as a separate section of the program.

SEC. 2.—Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members, and one for each major fraction thereof; but irrespective of the number of members, each component society which has made its annual report and paid its assessments as provided in this Constitution and By-Laws, shall be entitled to one delegate. The names of duly elected delegates from each component society shall be sent to the Executive Secretary of this Association at least thirty days prior to the date of the Annual Session at which such delegates are to serve. If any component County Medical Society is without representation at the end of the roll call, then the members registered in attendance from that county may select from their number a delegate to serve until the regular delegate or alternate appears.

SEC. 3.—Twenty delegates shall constitute a quorum.

SEC. 4.—It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body.

SEC. 5.—It shall divide the state into Councilor Districts, specifying what counties each district shall include,

and when the best interests of the Association and profession will be promoted thereby, organize in each district a medical society, and all members of component county societies, and no others, shall be members of such district societies.

SEC. 6.—It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates, and the members of such committees may be present and participate in the debate on their reports.

SEC. 7.—It shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective.

SEC. 8.—Funds may be appropriated by the House of Delegates, subject to approval by the Council, for such purposes as will promote the welfare of the Association and the profession.

SEC. 9.—At the first meeting, the President shall appoint from among the members of the House of Delegates, Reference Committees as hereinafter provided for, and any other committees considered by him necessary to expedite the business of the Association.

CHAPTER V.—ELECTION OF OFFICERS

SECTION 1.—The election of officers shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the Session.

SEC. 2.—All elections shall be by ballot, and a majority of the votes cast shall be necessary to elect. In case no nominee receives a majority on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken.

SEC. 3.—Any person known to have solicited votes for or sought any office within the gift of this Association shall be ineligible for any office for two years.

SEC. 4.—The term of office, unless otherwise specified, shall be for the fiscal year following the date of election.

CHAPTER VI.—DUTIES OF OFFICERS

SECTION 1.—The President shall preside at all General Meetings of the Association and of the House of Delegates; shall appoint all committees not otherwise provided for; he shall deliver an annual address at such time as may be arranged by the Scientific or Program Committee, and perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the state during his term of office, and as far as practicable, shall visit by appointment the various sections of the state and assist the Councilors in building up the county societies, and in making their work more practical and useful.

SEC. 2.—The Vice-President shall assist the President in the discharge of his duties. In the event of the President's death, resignation or removal, the Vice-President shall succeed him in office.

SEC. 3.—The Treasurer shall give bond at the expense of the Association in such an amount as shall be required by the Council. He shall demand and receive all funds due the Association, except accounts due THE JOURNAL in the conduct of its business, together with bequests and donations. He shall pay money out of the Treasury only on a written order by the President, countersigned by the Chairman of the Council. He shall present to the House of Delegates annually a report of the receipts and expenditures, and the state of the funds in his hands, and shall subject his accounts to such examination as the House of Delegates may order.

SEC. 4.—The Executive Secretary shall attend the General Meetings of the Association, and the meetings of the House of Delegates and the Council, and shall keep minutes of their respective proceedings in separate record books. He shall be Secretary of all committees of the Association, assist them in the performance of their duties and keep a record of their proceedings. He shall, under instructions from the Bureau or Committee on Publicity,

issue and send to lay publications such educational articles as may be prepared and authorized for general publication, and secure and assign medical speakers to address (on invitation) lay organizations on subjects pertaining to individual or community health. He also shall, whenever requested, assist any of the component societies of the Association in securing speakers or otherwise preparing a program for special meetings; he shall at all times hold himself in readiness to advise and aid, so far as practicable, any and all officers or committees of the Association in the performance of their duties or to carry out any of the purposes or policies of the Association. He shall be custodian of all record books and papers belonging to the Association, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which come into his hands. He shall be bonded at the expense of the Association in such an amount as shall be required by the Council. He shall provide for the registration of the members and delegates at the Annual Session. He shall, with the co-operation of the secretaries of the component societies, keep a card-index register of all the legal practitioners of the state by counties, noting on each his status in relation to his county society, and, on request, shall transmit a copy of this list to the American Medical Association. He shall report promptly memberships and proceedings or reports of the House of Delegates, the Council, or any committees of the Association to the Editor of *THE JOURNAL* for publication. He shall aid the Councilors in the organization and improvement of the county societies and in the extension of the power and usefulness of this Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall employ such assistants as may be ordered by the Council, and shall make an annual report to the House of Delegates. He shall supply each component society with the necessary blanks for making their annual reports; shall keep an account with the component societies, charging against each society its assessments, collect the same, and at once turn it over to the Treasurer. Acting with the Committee on Scientific Work and the Editor of *THE JOURNAL*, he shall prepare and issue all programs. The amount of his salary shall be fixed by the Executive Committee on approval of the Council.

SEC. 5.—The necessary expenses of the above officers incurred in the line of duty herein imposed, may be allowed by the Council, but excepting the executive secretary, this shall not include the expense of attending the annual session.

CHAPTER VII.—COUNCIL

SECTION 1.—The Council shall meet as follows: 1. Annually, in December or January. 2. On the day preceding the first day for the scientific meetings of the annual session of the Association. 3. On the last day of the annual session of the Association. 4. At such other times as necessity may require, subject to the call of the chairman, or on petition of three Councilors. It shall hold no meeting that will conflict with any meeting of the House of Delegates. It shall elect a chairman; and a clerk, who, in the absence of the Executive Secretary of the Association, shall keep a record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates. Five Councilors shall constitute a quorum for the transaction of business.

SEC. 2.—Each Councilor shall be organizer, peace-maker, and censor for his district. He shall visit the counties in his district at least once a year for the purpose of organizing component societies where none exist; for inquiring into the condition of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his work and of the condition of the profession of each county in his district, the same to be published

in the number of *THE JOURNAL* which is issued immediately preceding the Annual Session, and the report should be approved by the House of Delegates, with such recommendations as seem indicated. The necessary expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the Council on a properly itemized statement, but this shall not be construed to include his expense in attending the Annual Session of the Association.

SEC. 3.—It shall, through its officers, and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall study and strive constantly to make each Annual Session a stepping stone to future ones of higher interest.

SEC. 4.—It shall, in connection with the House of Delegates, consider and advise as to the material interests of the profession and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

SEC. 5.—It shall make careful inquiry into the condition of the profession of each county in the state and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality, and shall continue these efforts until every physician in every county of the state who can be made reputable has been brought under medical society influence.

SEC. 6.—It shall encourage postgraduate and research work, as well as home study, and shall endeavor to have the results utilized and intelligently discussed in the county societies.

SEC. 7.—It shall, upon application, provide and issue charters to county societies organized to conform to the spirit of this Constitution and By-Laws.

SEC. 8.—In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies to be designated by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies; and these societies, when organized and chartered, shall be entitled to all the privileges and representation provided herein for county societies, until such counties may be organized separately.

SEC. 9.—The Council shall be the board of censors of the Association. It shall consider all questions involving the rights and standings of members, whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the General or Section Meetings shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of component societies on which an appeal is taken from the decision of an individual Councilor, and its decision in all such matters shall be final.

SEC. 10.—The Council shall provide for and superintend all publications of the Association, and shall have authority to appoint an editor and such assistants as it deems necessary, and fix the amount of their salaries. The proceedings of the Council for the year shall be reported to the House of Delegates at the annual session, and be published in the number of *THE JOURNAL* which immediately precedes the Annual Session.

SEC. 11.—In the interim between the sessions of this Association the Council shall be the executive body of the Association with full power to fill vacancies or transact any business that emergencies or the welfare of the Association may require.

SEC. 12.—The Council shall employ an Executive Secretary who need not be a physician nor a member of the Association.

SEC. 13.—The Council shall elect a committee of five members of the Association, three of whom in consequence of their necessarily intimate relationship with the affairs of the Association shall be the President of the Association, the chairman of the Council, and the Editor of THE JOURNAL, which shall be known as the Executive Committee.

CHAPTER VIII.—STANDING COMMITTEES

SECTION 1.—The standing committees shall be as follows:

The Executive Committee.

A Committee on Arrangements.

A Committee on Scientific Work.

A Committee on Legislation.

A Committee on Publicity.

A Committee on Industrial and Civic Relationship.

A Committee on Medical Education and Hospitals.

Such committees, except the Executive Committee, which is elected by the Council, shall be appointed by the President of the Association, and the President and Executive Secretary of the Association shall be *ex officio* members of all standing committees. The President also may appoint such other committees as may be necessary.

SEC. 2.—The Executive Committee, consisting of five members as heretofore provided for, shall meet regularly once a month with the Executive Secretary to plan and execute such work as may be necessary for the welfare of the Association and the conduct of the Executive Secretary's office. It shall constitute the Medical Defense Committee of the Association and shall have full authority governing all matters pertaining to the medical defense features of this Association, and shall be governed by the rules and regulations concerning such features as provided for in the By-Laws of this Constitution. It shall represent the Council during intervals between meetings of that body and shall report its doings to the Council.

SEC. 3.—The Committee on Arrangements, with the advice and assistance of the Executive Secretary, shall provide suitable accommodations for the meetings of the Association, including the House of Delegates, Council, and of their respective committees, the scientific and commercial exhibits, and in conjunction with the Executive Secretary, shall have general charge of all the arrangements. Its chairman shall report an outline of the arrangements to the Executive Secretary of the Association for publication in THE JOURNAL and in the official program, and shall make additional announcements during the session as occasion may require. The arrangements for and the character of any and all commercial exhibits must meet with the approval of the Executive Committee of the Association.

SEC. 4.—The Committee on Scientific Work shall consist of a Chairman, appointed by the President, and the officers of the Sections, and they shall determine the character and scope of the scientific proceedings of the Association for each session, subject to the instructions of the House of Delegates. Thirty days previous to each Annual Session it shall prepare and issue a program announcing the order in which papers, discussions, and other business shall be presented. Such program and all announcements concerning the Annual Session shall be published in the number of THE JOURNAL of the Association that is issued just prior to the Annual Session.

SEC. 5.—The Committee on Legislation shall consist of three members, and the President and Executive Secretary of the Association. Under the direction of the House of Delegates it shall represent the Association in

securing and enforcing legislation in the interest of public health, medical education, scientific medicine and the economic welfare of the medical profession. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and to protect the medical profession, and shall strive to organize professional influence so as to promote the general good of the community in local, state and national affairs and elections.

SEC. 6.—The Committee on Publicity shall consist of five members, two of which shall be the President and the Executive Secretary of the Association. It shall be responsible for the dissemination of information concerning individual and community health to the lay public through articles prepared for publication in lay publications, or for addresses or talks delivered before lay audiences under the authority of the Association, and shall in every way seek to give the lay public a better knowledge and understanding of the aims and objects of scientific medicine.

SEC. 7.—The Committee on Industrial and Civic Relationship shall consist of three members appointed by the President, each to serve for three years, one member to be appointed each year. The duties of the committee shall be: To study, gather facts and become intimately acquainted with all and every movement wherever and by whomsoever agitated, proposed or attempted to enact or be enacted, that has as its secret or avowed object the providing of social, commercial or industrial medical insurance for the public, civic or commercial employees of persons or for the providing of medical or surgical care to a group or groups of individuals singly or collectively, or which in any manner affects the economic and financial status of the members of this Association either individually or collectively; to represent this Association in efforts to secure greater co-operation and a mutual understanding between medical men and employers of labor or their insurance carriers concerning the rendering of professional services in industrial cases and the amount and character of compensation therefor. To devise and advise, whenever necessary, intelligent action on the part of this Association upon these questions. To report annually and in writing, its findings, recommendations and information to the House of Delegates. Should occasion arise in the interval between the stated meetings of the House of Delegates and prompt action becomes imperative, the committee is to present its findings to the chairman of the Council and President who are empowered how to proceed in such emergencies by this Constitution and By-Laws.

SEC. 8.—The Committee on Medical Education and Hospitals shall consist of three members appointed by the President, each to serve for three years, one member to be appointed each year. The duties of this committee shall be to cooperate with the authorities of the Indiana University School of Medicine in efforts to improve the educational standards of the state as they pertain to the practice of medicine; to act in conjunction with the members of the Council in providing postgraduate clinics or teaching for the various councilor medical districts of the state; and to select one of its own members as a delegate to the yearly Conference on Medical Education and Hospitals of the American Medical Association, and to cooperate with the corresponding Council of the American Medical Association.

CHAPTER IX.—REFERENCE COMMITTEES

SECTION 1.—Immediately after the organization of the House of Delegates at each annual session, the President shall appoint from the members of the House reference committees to serve during the session at which they are appointed. Each committee shall consist of five members, the chairman to be specified by the President. To these committees shall be referred all reports, resolutions, measures and propositions presented to the House of

Delegates, except such matters as properly come before the Council, and the recommendations of these committees shall be submitted to the next meeting of the House of Delegates for acceptance in the original or modified form or for rejection.

SEC. 2.—The following reference committees are hereby constituted:

(1) A Committee on Sections and Section Work to which shall be referred all matters relating to the Sections or Section work. The members of the Committee on Scientific Work shall be members, *ex officio*, of this committee.

(2) A Committee on Rules and Order of Business to which shall be referred all matters regarding rules governing the action, methods of procedure and order of business of the House of Delegates.

(3) A Committee on Medical Education and Hospitals to which shall be referred all matters relating to medical education and medical colleges and hospitals. The members of the standing committee on Medical Education and Hospitals shall be members, *ex officio*, of this committee.

(4) A Committee on Legislation, to which shall be referred all matters relating to state and national legislation, memorials to the legislature, to the United States Congress, or to the Governor of the State, or to the President of the United States. The members of the standing committee on Legislation shall be, *ex officio*, members of this committee.

(5) A Committee on Publicity to which shall be referred all matters relating to publicity. The members of the standing committee on Publicity shall be, *ex officio*, members of this committee.

(6) A Committee on Hygiene and Public Health, to which shall be referred all matters relating to hygiene and public health.

(7) A Committee on Amendments to the Constitution and By-Laws, to which shall be referred all proposed amendments to the Constitution and By-Laws.

(8) A Committee on Reports of Officers, to which shall be referred the address of the President, and the reports of the Executive Secretary, Treasurer and the Council.

(9) A Committee on Credentials, to which shall be referred all questions regarding registration and the credentials of delegates.

(10) A Committee on Miscellaneous Business, to which shall be referred all business not otherwise disposed of.

CHAPTER X.—COUNTY SOCIETIES

SECTION 1.—All county societies now in affiliation with this Association or those which may hereafter be organized in this state, which have adopted principles of organization not in conflict with this Constitution and By-Laws, shall, on application, receive a charter from and become a component part of this Association.

SEC. 2.—Charters shall be issued only upon approval of the Council and shall be signed by the President and Executive Secretary of this Association. The Council shall have authority to revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws.

SEC. 3.—Only one component medical society shall be chartered in any county. Where more than one county society exists, friendly overtures and concessions shall be made, with the aid of the Councilor for the district if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Council, which shall decide what action shall be taken.

SEC. 4.—Each county society shall be judge of the qualifications of its own members, but, as such societies

are the only portals to this Association and to the American Medical Association, every reputable and legally registered physician who does not practice or claim to practice, nor lend his support to, any exclusive system of medicine shall be entitled to membership. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every physician in the county to become a member.

SEC. 5.—Any physician who may feel aggrieved by the action of the society of his county in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Council, and its decision shall be final.

SEC. 6.—In hearing appeals the Council may admit oral or written evidence as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

SEC. 7.—When a member in good standing in a component society moves to another county in this state, his name, on request, shall be transferred without cost to the roster of the county society into whose jurisdiction he moves.

SEC. 8.—A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he resides.

SEC. 9.—Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified and honorable physician in the county.

SEC. 10.—At some regular meeting, in advance of the Annual Session of this Association, each county society shall elect a delegate or delegates and alternates to represent it in the House of Delegates of this Association, and the Secretary of the society shall send a list of such delegates and alternates to the Executive Secretary of this Association at least thirty days before the Annual Session. No one shall be entitled to a seat in the House of Delegates unless his credentials as a delegate or alternate, properly signed by the Secretary and President of the County Society, be presented to the Committee on Credentials at the time of the Annual Session.

SEC. 11.—The Secretary of each component society shall keep a roster of all its members and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this state, and such other information as may be deemed necessary. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

SEC. 12.—The fiscal year of the Association shall be from January 1 to December 31, and all assessments shall be for the fiscal year and payable in advance. The Secretary of each component society shall forward the assessment for his society, together with the roster of officers and members and list of nonaffiliated physicians of the county, to the Executive Secretary of this Association, on or before January 1 of each year, and he shall promptly report thereafter the names of any new members elected to membership in his society, and promptly forward to the Executive Secretary of this Association the assessment for such new members. The assessment shall be the same for all members and entitle the members to all benefits, including the publications of this Association, from the time of paying the assessment to the close of the fiscal year only.

SEC. 13.—Any county society which fails to pay its assessment or make the report required by February 1 of each year shall be held suspended, and none of its members or delegates shall be permitted to receive any of the publications of the Association or participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

SEC. 14.—Each county society shall be held responsible for the faithfulness in the performance of duty on the part of its Secretary in making reports and remitting dues or assessments to the Association.

CHAPTER XI.—MISCELLANEOUS

SECTION 1.—The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, when not in conflict with this Constitution and By-Laws.

SEC. 2.—The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

CHAPTER XII.—MEDICAL DEFENSE

SECTION 1.—Seventy-five cents out of the annual dues of each member of the Association shall be set aside as a special fund for Medical Defense.

SEC. 2.—Whenever such fund shall exceed the sum of \$6,000 the surplus over and above this amount shall be turned back into the general treasury or may be used for such other purposes as the House of Delegates or Council may direct.

SEC. 3.—The administration of Medical Defense of this Association shall be intrusted to the Executive Committee, which shall constitute the Committee on Defense of the Association.

SEC. 4.—This committee shall have full authority governing all matters pertaining to the Medical Defense features of this Association; with power to employ counsel, summon and employ expert witnesses and incur such other expenses as in the judgment of the committee may be necessary in the defense of members against whom suits may be brought; provided, always, that the total expenditure in any single suit shall not exceed 25 per cent of the fund available at the time suit is incurred.

SEC. 5.—The Treasurer of the Indiana State Medical Association shall be custodian of the Defense Fund, separately kept, and shall give an additional bond in the sum of \$6,000. He shall pay out money from this fund only on the signed order of the Chairman of the Executive Committee and countersigned by the President and the Chairman of the Council.

SEC. 6.—The Medical Defense Committee shall make an annual report to the House of Delegates of the cases in which it has been of service to members, and furnish an account of the money received and expended, such report to be published in THE JOURNAL of the Indiana State Medical Association at the time and in the manner that reports of other committees of the Association are published. The financial report of the committee shall be submitted to and approved by the Council.

SEC. 7.—The liability of this Association shall include only the expenses necessary for the legal defense of its members and not damages awarded.

SEC. 8.—The Association shall not undertake the defense of a member in a suit that may be brought to secure indemnity for services rendered prior to January 1, 1912, nor in any case in which the member who applies for medical defense by the Association has failed to pay his annual dues for the year in which services were rendered which are the basis of the suit; and that medical defense by the Association shall not be available to those who are delinquent, or to those who have not paid

the annual dues of the Association prior to the rendering of services for which indemnity is asked. (Dues are payable on January 1, and become delinquent on February 1 of each year.) The membership card of this Association, duly signed and dated by the Executive Secretary, shall be considered the only bona fide evidence of payment of dues or membership in this Association.

SEC. 9.—A member desiring to avail himself of the services of the Committee on Medical Defense in connection with litigation brought or threatened must send to the Executive Secretary of the Association for an application blank. After completing the data concerning the case he shall submit to a local committee of his county medical society—to be composed of the President, Secretary and one other member in good standing who may be nominated by the defendant—a full statement of the question at issue, including the diagnosis and treatment of the case and the names of physicians, nurses and other persons having knowledge of the same, who may be summoned as witnesses.

SEC. 10.—The committee of the county medical society shall immediately, after an investigation of all the circumstances and facts, transmits its report, with recommendations, to the Committee on Medical Defense of this Association.

SEC. 11.—Accompanying such report from the county society, if favoring medical defense by the Association, there also must be furnished the written authority of the defendant granting to the Medical Defense Committee of this Association full power to act in his behalf, and an agreement that his case shall not be compromised or settled without the consent of a majority of the Committee on Medical Defense.

SEC. 12.—In the event that the county committee shall fail to recommend the case as one worthy of the recognition of this Association, a direct appeal may be made to the Committee on Medical Defense of this Association, whose decision shall be final.

SEC. 13.—Suits brought against the estate of a deceased member shall be defended as if that member were alive; provided, that such member was in good standing in the Association at the time of his death and that services for which indemnity is asked were rendered while the deceased was a member in good standing.

SEC. 14.—Each member of the Committee on Medical Defense of this Association shall be entitled to an honorarium of \$10 per diem for services actually rendered while at home, and \$30 per diem with traveling expenses, if required to go out of town in the investigation of any case or in attendance at court, and these same fees shall be allowed to expert witnesses under similar circumstances.

SEC. 15.—Medical defense shall not be available to members living outside of the State of Indiana at the time services were rendered for which indemnity is claimed.

SEC. 16.—The Committee on Medical Defense shall have power to adopt such other rules, not in conflict with the foregoing, as in their judgment may seem necessary.

CHAPTER XIII.—DIVISION OF FEES

This Association does not countenance or tolerate fee-splitting, division of fees, or commission paying directly or indirectly, and any member found guilty shall be expelled from membership.

CHAPTER XIV.—AMENDMENTS

SECTION 1.—These By-Laws may be amended at any Annual Session by a majority vote of all the delegates present at that session, after the amendment has lain on the table for one day.

SEC. 2.—Upon the adoption of this Constitution and By-Laws, all previous Constitutions and By-Laws are hereby repealed.

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of the
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Devoted to the Interests of the Medical Profession of Indiana

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EDITORIALS

OUR PRESIDENT

Every doctor in Indiana knows "Charley" Combs, who for fourteen years was the very efficient and genial secretary of the Indiana State Medical Association. He is modest by nature and it was with the greatest difficulty that we obtained a little history of his early career. He was born in Mulberry, Indiana, in 1879. His early education was obtained in the Remington, Indiana, high school, and later he attended Indiana University from which institution he graduated in 1900, receiving the A.B. degree. Three years later he received his M.D. degree from the Medical College of Indiana, now the Medical Department of the University. He, therefore, is entirely a Hoosier product. Immediately after his graduation from medical school he located in Terre Haute, where he has resided ever since and where he now limits his practice to anesthesia. He modestly admits that he is addicted to the secretarial habit, inasmuch as he was secretary of the Vigo County Medical Society from 1906 to 1910, and secretary of the Indiana State Medical Association from 1910 to 1925. He was treasurer of the Indiana State Medical Association during the latter part of 1925. Since 1910 he has been superintendent of the Union Hospital of Terre Haute, and during his service in that capacity the institution has grown from a 75-bed to a 175-bed hospital. He is a member of the Esculapian Society of Wabash Valley. He is a charter member of the American Association of Anesthetists. He also is a Fellow of the American Medical Association. During the World War he was captain in the Medical Corps and served in France with the Twenty-second Engineers. He was a Legionnaire and belongs to Fort Harrison post No. 40. He is a Rotarian, Mason, Presbyterian and Democrat.

Too much praise cannot be given Dr. Combs for the splendid service he has rendered the Indiana State Medical Association. He became secretary at a time when the affairs of the Association were in a somewhat chaotic condition, but he soon had everything running in a systematic way, and his quiet, unassuming, efficient, and good-natured administration of the affairs of the office won him friends all over the state. At all times he has upheld the best traditions of the medical profession, and has been a staunch supporter of its highest ideals. In his chosen specialty to which he

limits his practice he has made an enviable reputation, not only at home but throughout the country.

The Indiana State Medical Association has honored itself many times by electing to the presidency men of standing and ability in the state, but never has the honor of president of the Association gone to one more deserving than Dr. Combs, and we know that every member of the Association is pleased to welcome him as our president.

RILEY MEMORIAL HOSPITAL

We have been hearing considerable criticism concerning the management, control, and policies of the Riley Memorial Hospital for children, and in this number of *THE JOURNAL* we print a complaint from the Daviess-Martin Medical Society that has been sent in for publicity. We admit having felt a little uncertainty as to just how satisfactory state-supported hospitals and clinics would prove to be, for we always have believed that it would be impossible to conduct for any considerable length of time a hospital or clinic under state control and management as a purely charitable institution and not have the privileges shamefully abused and the enterprise forming another factor in the development of State Medicine. Our readers are well aware of the fact that for several years we have been pointing out the dangers of State Medicine, and repeatedly we have called attention to the increase in the number of institutions and activities that either are a part and parcel of State Medicine or have a tendency in that direction.

We have had the pleasure of visiting the Riley Memorial Hospital and getting at first hand some information as to how the institution is conducted, what its policies are, and what is being accomplished by it for those in whose interests it has been established. We have been impressed with the sincerity with which the management has attempted to conduct and maintain a hospital where the best grade of service can be rendered, and where a policy is followed of keeping the institution free from the charge that it is one in which the well-to-do may go and receive attention at State expense. It would seem that the hospital is safeguarded by a law which requires that every person admitted to the hospital must be indigent and entered under court order, and the county from which the applicant comes must pay a specified modest per diem charge for the attention and support. This upkeep is made up of the board, room, nursing and professional attention, but the daily charge amounts to no more than maintenance charge for room and board.

The members of the Daviess-Martin County Medical Society evidently believe that no charge should be made for the patients entered at the hospital which should be a purely charitable institution, and if that is the contention we are not in agreement with them. It is no more than right that a county should pay the actual expenses

of caring for its poor crippled children. If this were not so, then there would be a great abuse of the charity, and there would be many counties that would be overtaxed in support of an institution that is affording greater benefit to some other counties. There also would be the tendency on the part of those deciding the question of admission to the hospital to use no discrimination in the selection of cases. As it is now, the indigent crippled child who really needs expert care and attention can receive the same at the Riley Hospital and the community in which such child lives should be quite willing to pay actual cost of service rendered. Furthermore, there should be no question as to the eligibility of the child on a charitable basis. In other words, it should be distinctly understood that the hospital is for the deserving poor only.

One of the most emphatic and serious complaints that has come to our notice is that which pertains to the admission of patients to Riley Hospital who are amply able to pay for the services and we are told, though the accuracy of the statement we have not been able to prove, that certain parents, amply able to pay, have succeeded in having their children assigned to the Riley Hospital by agreeing to reimburse the county for any expense charged for services and attention. Such a condition of affairs is a shameful abuse of charity, but we do not see how it can be blamed upon the Riley Hospital, which accepts patients only when they are sent in by court order and accompanied by the statement that they belong to the indigent class. When objection is raised to such practices the plea is made that inasmuch as the Riley Hospital does afford a superior quality of service, and that parents are desirous of having their children entered there for such service, therefore they should be permitted to take advantage of the facilities offered by the hospital and if able to pay for the service should be permitted to do so. It may be remembered that no provision is made for pay patients at the Riley Hospital and perhaps it may be argued that this is a mistake. Our own conception of the matter is that the State has no business entering into the private practice of medicine in any guise whatsoever, but if its institutions and hospitals are to be thrown open to the public for the treatment of the ailments of mankind, then the services should carry the obligation of payment of such fees as the patient is able to pay. However, it is a little inconsistent for the State to educate its young men for the practice of medicine, accept payment for such education, and then enter into competition with them as soon as they are out of college.

We believe that up to the present the management and policies followed by the Riley Hospital are worthy of the approval of the medical profession. The State is paying a large sum toward the maintenance and equipment of the hospital,

and the little patients who are admitted to the hospital pay a sum which is barely sufficient to pay for board and lodging, and this sum is paid by the county from which the patient comes. In our judgment a better arrangement could not be found, as it places the matter on a basis where some discrimination must be made in the assignment of patients to the hospital, and it makes each county feel that it is contributing to the care of its worthy cripples. Whenever you make the hospital absolutely free then it will be subject to many more abuses than at present. On the other hand, if the hospital attempts to charge those who are willing to pay, then the fees probably would be a small fraction of what ordinarily would be charged by private practitioners, and the worst feature of such an arrangement would be that the hospital would be in direct competition with other hospitals and with legitimate and well-trained practitioners in private practice.

This whole question of the policies to be pursued by state hospitals is one that offers serious problems to be solved. Anyone with far-seeing vision can predict with certainty that a policy of failure to discriminate in our admission of patients to our state-supported hospitals is a step toward the establishment of State Medicine with all of its ills to the public as well as the medical profession. There is another phase of the question that is worthy of the serious consideration of the public as well as the medical profession, and that is the one that has to do with the increase in the pauperization and dependency of a large portion of our people who are willing to get something for nothing whether deserving or not.

In the final analysis State Medicine not only means the expense incurred in the erection and maintenance of hospitals and clinics, but it also means an increase in taxation to furnish attention to a large number of people who are not deserving of it because they are not rightful objects of charity. Still another phase of the question is that of encouraging the tendency to expect and even demand service and attention other than that furnished by hospitals and medical men, all at state expense. The good citizen is the one who supports himself and who possesses enough self respect to feel that he wants to earn what he receives. The minute he begins to receive charity, that minute he starts on the road to pauperism and continuous dependence. There are some who have enough self respect to rise above the dependent class, but the history of all charitable organizations is that many people are made permanently dependent as a result of temporary aid rendered at a time when they really needed it, but having learned that the charity is so easily obtained, the recipient falls into the habit of expecting it.

The management of the Riley Hospital has placed itself in the position of not cultivating pauperism and dependency, inasmuch as the various counties are expected to pay the actual cost

of caring for their dependents. This is, it seems to us, entirely commendable. Also, the hospital has placed itself in the position of being opposed to competition with the legitimate practice of medicine, and consequently patients who are able to pay adequately for the services rendered are not admitted. If the restrictions as laid down by the hospital management are followed, it seems to us that there is little reason for complaint. If the hospital privileges are abused through misrepresentation, or in any other way, then it is up to the medical profession or the people to discover who is responsible for the impositions and endeavor to correct them. As a matter of fact, we shall feel very highly satisfied if the Riley Hospital continues to be managed and to follow the policies that are in force today. The only fear we have is that through some hook or crook the policies of the institution will be changed, and the announcement will go forth that as a State institution it will accept any and all who go there, without money and without price. Then we certainly will have State medicine, and, incidentally, competition in the private practice of medicine.

We have been told that the Riley Hospital controversy is to be brought up at the West Baden session of the Indiana State Medical Association, and if so, the whole subject should be discussed with frankness and consistency, and with due regard for the rights and privileges of the public as well as of the medical profession. While we have been and always will be opposed to absolute charity, except for those who are helpless, the state, the county, or the municipality should support its deserving poor, and not even the members of the medical profession should be asked to donate their services. Pauperism and dependency will be curbed when we quit rendering charity to those who do not deserve it.

THE SUPPRESSION OF CRIME

This editorial is not for idealists. Nor will it appeal to sentimentalists. Nor yet to professional optimists whose pet phrase proclaims: "This is the best of all possible worlds." It's for men who are willing to face the facts, however disturbing, regarding crime.

Nobody denies that crime is increasing. Every newspaper tells us that. Read them—and think.

We always will have crime, just as we always will have war, unless human nature changes. And only the idealist believes it ever will change.

We cannot reform criminals, although the sentimentalist thinks we can. We cannot prevent their being born or made. The best we can do is to curb them, and we can do this, not by passing more laws against them, but by enforcing the laws we already have.

When men know that a law is enforced feebly, or not enforced at all, that law is flouted openly. Ten million respectable citizens, ordinarily law-

abiding, are defying the prohibition law today because they know they can get away with it. If it were absolutely certain that they would be fined or imprisoned for breaking this law, how many of them would break it?

Thus with crime. Crime is strong and growing stronger because criminals know we'll not molest them. If they were dead sure that a man must forfeit his life for slaying another, that he must pay the maximum penalty for committing theft, would we have so many murders and robberies? I think not.

The handmaiden of crime is political graft. The gangster and the alderman, the gunman and the state's attorney, are in sweet accord; and your industrious crook pursues his career, untroubled by a care. If, by ill luck, he is arrested, he knows that the danger of punishment is slight. If, due to some strange mishap, he is sent to the penitentiary, the sentimentalists will see that his life is softened there. Or, if he is still a right guy with the right officials, the parole system will pluck him forth and restore him to his lucrative practice before he has served one-half of his term, or even a fourth of it.

Crime is like a poisonous reptile, noiseless in movement, swift in attack, stealthily creeping into well-guarded places, unseen and unheard, and striking when least expected. Our cities are alive with these deadly serpents; and where they will strike next, or when or whom, nobody can tell.

And yet, in spite of this, in spite of all we know about it, there is a general apathy toward crime that is, to say the least, astounding. A man who will get vastly excited if somebody steals his morning paper will read with tepid interest, or with no interest at all, such headlines as "Robs and Kills Woman; Slays Policeman," or "Bandits Get \$80,000 Payroll; Shoot Guards." These things seem as remote from his life as an uprising of cannibals in the hills of New Guinea.

There is not much point to this sort of writing unless one can offer some helpful advice; and, as an excuse for having written it and with no great hope that it will do any good—for I am not a professional optimist—I make these suggestions:

(a) Appointment of all judges by the United States Senate.

(b) A federal police force empowered to protect citizens everywhere.

We will never have justice in our courts so long as judges are elected by popular vote.

And we'll never be able to control crime while our police departments are controlled by politicians.—Editorial by Edwin Baird in *Real Detective Tales*.

GRADUATE MEDICAL WORK IN NEW YORK

In a pamphlet recently received, the opportunities for clinical study in postgraduate schools and hospitals of New York City have been set forth

in elaborate detail. This pamphlet, prepared and issued by the Committee on Medical Education of the New York Academy of Medicine, shows which of the eighty-six hospitals in greater New York have general internships, those which have residencies in the specialties, and those which hold special clinics. Through this leaflet a physician can ascertain easily where to get such advanced medical instruction as he may desire. The map guides inserted in the pamphlet also will enable him readily to find any hospital in either New York or Brooklyn. In no other city in this country have the facilities for graduate instruction been so well organized, or the hospitals and clinics so carefully catalogued. The larger cities of this country, with their many well conducted hospitals and dispensaries, provide a great abundance of excellent clinical material which, if properly organized, either through some such central committee or through university graduate medical schools, could be utilized in the higher education and training of physicians. Such organization for graduate medical instruction now constitutes one of the greatest needs in medical education in this country.—*Jour. A. M. A.*, Aug. 14, 1926.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

It is absolutely free to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve you.

THE time: Wednesday, Thursday and Friday, September 22, 23 and 24.

THE place: West Baden, Indiana.

THE event: The annual session of the Indiana State Medical Association.

DON'T fail to take your membership card to the West Baden session as it will be required when registering.

AGAIN we are publishing a list of the presidents of the Indiana State Medical Association from the founding of the Association up to and including the present date.

THIS number contains the completed and official program for the West Baden session. Read it carefully and go to West Baden prepared to take part in the discussions.

GENIAL Tom Hendricks is proving his worth

as an executive secretary. He admits that he has a man's job, and that oftentimes the days do not seem long enough to transact all of the work that is thrust upon him, but he is accomplishing results that justify the confidence that the Association has placed in him.

THE county medical society secretaries are to have a meeting at West Baden, and it is hoped that there will be a large attendance. Of especial interest is the promise of Dr. Olin West, secretary of the American Medical Association, to be present and address the secretaries on the subject of organization work.

INDIANA is noted for its good roads, and every year the roads are greatly improved by the addition of many miles of pavement. All roads to West Baden are reported in excellent condition, so the doctors who desire to go by automobile to attend the annual session of our Association should find the trip enjoyable.

COURSES in speech reading are offered by many institutions of learning and the last to offer such a course is the Michigan State Normal College, located at Ypsilanti, Michigan. In reality these courses merely teach the art and practice of lip reading, and they are of great service to the deaf. All deaf persons should learn to lip read.

THE officers of sections and others presiding at various meetings of the West Baden session are reminded that every meeting must be called on time, and that all those who take part in the program should be informed that they will be limited to the time set for their use or otherwise the program will not go off smoothly and satisfactorily.

THE Better Business Bureau of Rochester, New York, advertises that it protects business and the buying public against traveling quacks, consumption cure fakes, fake medical institutes, fraudulent cancer cures, epileptic cure frauds and mail order spectacles. It is unfortunate that there are not more Better Business Bureaus like that operating in Rochester.

AGAIN we desire to repeat that the Association has honored itself by choosing Dr. Charles N. Combs, of Terre Haute, as its president for this year. For many years Dr. Combs was the very courteous and efficient secretary of our Association, and his long, faithful and creditable service won him the friendship and respect of every member of the Association.

WE sincerely hope that no one attending the West Baden session will be beguiled into securing the privilege of the floor for the exploiting of commercial products. Such things have occurred

in the past, and they have a tendency to detract from the scientific value of our meetings to say nothing of leaving some sore spots among competing firms whose respect we desire to maintain.

THE Associated Press dispatches carry the announcement that the president of the Anti-Tobacco League claims that tobacco killed Valentino and that scientific investigation actually proves the claim. Why do reformers put out misleading, extragant and altogether too often the most malicious lies concerning their pet hobbies. Tobacco had no more to do with the death of Valentino than with the crucifixion.

MEMBERS of the House of Delegates are reminded that they are expected to be in West Baden early on the first day of the session in order to participate in the first meeting of the House, which will be called at 2 o'clock in the afternoon. The councilors also are expected to be on hand earlier than usual. By convening early in the afternoon these important bodies of our Association can transact the work before them without hurried and ill-advised action.

THE next annual session of the American Medical Association will be held in Washington, D.C., May 16 to 20, 1927. Usually the session is held in June, but owing to climatic conditions this year the session was held in April. Next year the session is to be held in May in order to avoid the excessively hot weather which prevails in Washington from June until September. Undoubtedly the Washington session will be very largely attended, as the capital of the nation offers many attractions outside of scientific meetings.

PROCRASTINATION killed Valentino. It is well that the attending physicians let the public know that delay in an operable case is dangerous. Valentino had skilled surgeons and internists attending him, and the chances are better than ten to one that had they been called earlier Valentino would be living today. The publication of the facts in the case cannot help but be beneficial to that portion of the public that is inclined to follow the dictates of convenience rather than necessity and good judgment.

WE hope that the members of our Association appreciate the excellent work that is being done by our Bureau of Publicity. The weekly articles that have been released for publication have been used by an ever increasing number of newspapers throughout the state, and a large number of lay readers are beginning to look upon these articles as containing trustworthy information concerning the subject of health and how to keep it. Incidentally these articles are of distinct value in creating a higher regard for scientific medicine.

AGAIN we are publishing the revised Constitution and By-Laws as prepared by the late Dr. George F. Keiper, who was chairman of the Committee on Revision. We sincerely hope that the revision will be accepted at the West Baden session. It is possible that minor changes may seem indicated, but it should be an easy matter to make changes at the coming session and not put off adopting the Constitution and By-Laws as a whole in consequence of any difference of opinion as to minor alterations that can be made without delay.

Two things we would like to ask of Indiana doctors. First, how many of you subscribe for *Hygeia*, and keep that journal on the tables in your reception rooms? Second, how many of you who think you are well have practiced what you preach by submitting yourselves to a complete physical examination? It is entirely probable that some of you are not quite as well as you think you are, and there is no reason why we should lose a few doctors when the adoption of some precautions may save them for a longer period of usefulness and happiness.

A FEW aggressive opticians in Indiana are advertising the cure of cross eyes with glasses. One or two of them go so far as to say that cross eyes can be straightened by glasses within a few days. We wonder why the Better Business Bureaus do not put a stop to this sort of extravagant and misleading advertising. Dishonest advertising hurts the whole community and especially the merchants. If the medical men would take an interest in this matter of the suppression of dishonest advertising something might be accomplished through the medium of the Better Business Bureaus of the various cities of the state.

GOLF is becoming more popular everywhere, and medical men, especially the younger ones, very generally are engaging in the game for the exercise and recreation that it affords. Accordingly, the tournaments that are held in connection with the annual sessions of our Association are becoming more and more popular, and the one to be held at West Baden this year promises to be more generally participated in than any that have gone before. It is suggested that those who intend to play in the tournament should make their entries prior to going to West Baden, and full particulars may be obtained by addressing the chairman of the committee.

A RECENT chiropractic bulletin announces that the chiropractors are recognized in Indiana. Presumably it is meant that the chiropractors are recognized legally, but that is far from the truth. We are quite in sympathy with the statement that came from Davenport to the effect that the chiropractors in Indiana hold a better position

than the chiropractors in any other state in the country. They are not recognized legally, but why should they be licensed when they can practice in Indiana without let or hindrance and the majority of them are doing a cash business? Why should Indiana chiropractors worry when things are coming so easy for them?

As a helpful sign of the times we note in the advertising of a dealer in women's clothes a warning to women who desire to be thin that they should not attempt to reduce except upon the advice of a physician and not to take drugs. It is pointed out that in the mad desire to lose weight by any means women are developing psychopathic disorders that might not have developed if they had not become nervously irritated by taking drugs, gland extracts, and powerful eliminants. The advertisements of alleged fat-reducing preparations are condemned, and the women who desire to be thin are advised to consult their family physicians and incidentally to select clothes that help to make them look slender.

A COMMITTEE representing the National Society for the Prevention of Blindness is now in England studying the British methods of maintaining sight saving classes in the public schools for children with seriously defective vision. There are at present approximately 250 sight-saving classes in America and it is expected that the committee will bring back to this country word of any advances that have been made in this field in Great Britain. Only recently we have begun to realize that the sight of many of the men and women who are blind today might have been saved if there had been available for them in childhood sight-saving classes such as the more progressive school systems now maintain. It is expected that in the near future many more sight-saving classes will be established in our educational institutions in this country.

A NOTED New York surgeon has taken pen in hand to announce to a waiting public that women's dresses are not going any higher because women all have homely knees. Evidently he hasn't seen Ann Pennington's knees, advertised as the most beautiful in the world. Anyway we believe that the average woman is satisfied that her knees, to say nothing of her legs, are attractive, and she is quite willing to expose them to an admiring public. She may try to make us believe that she is following the dictates of style, but as a matter of fact we believe that she really is following the dictates of her own feeling in the matter. However, while the women are having a little fling at trying to follow the dictates of fashion, the men are enjoying the spectacle and not a few of them are cleaning their glasses so that they can see better.

MALPRACTICE suits against physicians are on the increase. No physician of property is safe from legal action, though the vast majority of these cases are absolutely unfounded. Generally speaking every malpractice suit has a doctor back of it, and we earnestly urge every county medical society in Indiana to discipline any member who aids or encourages the bringing of a malpractice suit against one of its members. We also urge every member of the Indiana State Medical Association to keep his dues paid up so that he will be in good standing in case a malpractice suit is brought against him. The Association will defend any such member in a malpractice suit if so desired. If such member is carrying any outside indemnity insurance the Association will join in the defense or will aid in any possible way in bringing about favorable termination of the matter. Every doctor should see that he has protection, for no one is exempt from the efforts of the class of people who try to get something for nothing.

ONE of Indiana's prominent general practitioners who removes tonsils and adenoid tissue from children recently was met with refusal on the part of a mother to pay for a tonsil and adenoid operation on the grounds that the work was very improperly and unskillfully done. In fact, the claim was made that tonsillar tissue was left and that the adenoid tissue had not been removed at all. As a basis for the objection to the payment of the bill, the opinion of two reputable medical men was cited. A thorough and painstaking examination by a disinterested specialist showed that the operation had been done in a very skillful and highly satisfactory manner, and that the results were all that could be desired. It is this "knocking" on the part of supposedly reputable men in the medical profession which makes the public suspicious of our ability and honesty. As we have said before, the only way to make some medical men decent is to hit them over the head with a club. If you cannot speak well of your fellow practitioners to the public then say nothing at all.

AN indulgent mother who permitted her young hopeful to eat anything and everything that was indigestible and capable of adding to ill health, was advised by her family physician to deny the child food for an entire day. The mother very promptly accused the doctor of prescribing a form of treatment that would either starve the child or make it ill. Often a family physician has more trouble in handling a fool mother than he does in handling the sick child of that mother who shows evidences of malnourishment because the mother is permitting it to choose as a diet too many sweets, too few vegetables, too little fruit and no eggs and milk. If the starvation treatment were adopted oftener with malnourished youngsters

there would be a greater demand on the part of these children for wholesome food. No healthy child will starve or become malnourished because he is allowed to go hungry for a meal or so, and a good healthy appetite relishes nourishing food. Humoring a child as to diet has made many sickly children. The youngster who possesses a finicky diet usually is one who has been pampered by a doting mother, and such a child is really ill.

THE orange is rich in vitamins and medical men universally are recommending that this delicious fruit form a considerable part of human diet. Now comes the *Journal of the A. M. A.* calling attention to modern researches which prove that the lemon, even to the peel, is rich in vitamins and therefore should be used as freely as oranges are used. We recently read an article by a well-known writer who lived long in the equatorial regions, which pointed out that the reason why so many people of the northern latitudes do not thrive in hot climates is because they do not learn how to select a suitable diet which ought to be largely composed of fruits. As a drink he recommends lemon juice in water without sweetening, of which dozens of glasses may be taken during the day. He stoutly maintains that such a drink and it alone is sufficient as a fluid intake, and that if the diet is made up of vegetables, most of which should be cooked, fruits, and a very insignificant amount of meat, the ordinary person will not suffer in the hot climates of the equatorial regions. A strong point is made of the fact that both the orange and the lemon contain enough vitamins to offer decided nourishment.

WE are not surprised to note that there is a growing sentiment among public health officials to the effect that pasteurizing milk is a simple way of covering up uncleanness, and that the safest and best milk for human consumption is certified milk. The matter is of sufficient importance to justify consideration at the hands of all medical organizations, and already a number of prominent medical societies throughout the country have placed their stamp of approval upon certified milk which must be produced by healthy cows under sanitary conditions and handled by healthy humans using clean apparatus. The disagreeable taste often found in pasteurized milk in reality is caused by contamination with filth, and when pasteurization is the only thing demanded of the dairymen there will be many dairymen who will not take the trouble to employ the methods required of those who produce certified milk, and as long as they are paid just as much for their milk, why go to the trouble? The slogan, "Clean milk, not cleaned milk," would be a good one for medical societies to insist upon, and with agitation by the medical profession the problem of a clean and wholesome milk supply will be solved.

WILL someone get the axe? The uplifters are going to banish tobacco! Indiana is to be the starting point and our next legislature will be asked to pass a law that will make it a crime to use tobacco in any form. If the reformers have their way the man or woman whose breath smells of tobacco will be shot at sunrise.

Throughout all time there have been those who would regulate the Universe, and probably such people will continue to exist to the end of the world. However, in unguarded moments some very objectionable laws have been placed upon our statute books by fanatical and misguided reformers, and it is just as well to be on the lookout for freak legislation even though it cannot be enforced. The American people are said to have little respect for law, but we should have laws that the majority of our people *can* respect and then enforce them. A law that is generally unpopular will not be respected, nor can it be enforced. There is no crying need for tobacco prohibition. Tobacco does not corrupt morals nor does it appreciably affect the general health, so why prohibit its use? Why not legally prohibit the use of condiments and sweets?

THE United States Department of Agriculture is sending out bulletins concerning health problems, and giving advice as to personal habits and health. We had supposed that the Department of Agriculture was for the purpose of fostering and encouraging development in the line of agriculture. However, medical advice is something that every one seems to consider himself able to give, and the Department of Agriculture might as well be giving medical advice and practicing medicine the same as other institutions, organizations, and individuals. It doesn't follow that government advice always is reliable, but what difference does that make? The Bureaus in Washington must have something to do and inasmuch as it doesn't take all of the time of the Department of Agriculture to tell the farmers how to sow their timothy seed or take care of their hogs that are suffering from cholera it is quite appropriate that that department should tell us how to treat our children who are suffering from diphtheria and how to treat babies whose mothers either will not or cannot nurse them. Every day we are getting a little nearer to paternalism. Some day the people are going to balk. We hope that we shall be here when that time comes.

A FEW months ago we commented unfavorably concerning the Hoxide Cancer Cure of Taylorville, Illinois. It may be remembered that we called attention to the fact that this cure was exploited by the Chamber of Commerce of Taylorville, probably because cancer sufferers will grasp at anything promising relief, and if enough of them could be induced to go to Taylorville it would mean profit for the business men who are

members of the Taylorville Chamber of Commerce. Like most cancer cures, the Hoxide cure was exploited under extravagant claims, and there is no trustworthy evidence at hand to show that there is the slightest virtue in the cure. Our readers may be interested in knowing that very recently the Chicago daily papers carried Associated Press dispatches showing that some of the ring leaders in the Hoxide Cancer Cure at Taylorville had been arrested for fakery and fraudulent transactions in connection with the exploitation of the cure. It is reported that even the United States Government has taken a hand in the matter by entering prosecution for using the mails to defraud. Thus another quackery bubble is bursted, but there will be more to take its place, for a sucker is born every minute and as long as there are victims for the faker, there also will be fakers to prey upon them.

WE are wonderfully proud of the work that is being done by our State Medical Association, which is engaged in a great deal of constructive work that is being carried on in a highly satisfactory manner. The affairs of the Association are run in a systematic and business-like way, and for the first time in the history of the Association there is a coordination of effort that brings results and speaks well for the future. The executive secretary has been a busy man, and he has accomplished much in the interests of the Association, and will accomplish much more in the future. Our committees have worked zealously and always with an eye to constructive results. Their reports, published in this number of *THE JOURNAL*, indicate what they have been doing the last few months. *THE JOURNAL* speaks for itself, and we have no apologies to make for its character or worth. Our treasury has a substantial balance and we hope that there will be no wild orgy of spending throughout the coming year as the result of unwise appropriations at West Baden. If we attempt any new measures which call for expenditure of considerable sums of money let us take up the subject of systematized postgraduate work in various sections of the state. That is something that would bring big returns for a small amount of money expended.

THE Connecticut State Board of Medical Registration has refused to license an eclectic practitioner who passed the eclectic medical examining board of the state. The refusal was based upon the fact that the applicant for license had failed to comply with the requirements which demand suitable education and training. He ignored the ruling of the board and began the practice of medicine, but was arrested for practicing without a license, and the case was carried to the superior court which recently has handed down a decision. In giving his opinion the judge said, "That a person in need of medical or surgical

treatment shall receive skillful attention at the hands of a newly registered and licensed physician is of vital concern to civilization and to the health and comfort of the person served. The defendant made a sorry show of his general knowledge and training in court, and he admitted that his medical education was and is a sham. That the State of Connecticut should license him and hold him out to its people as a man qualified by education and experience to be the custodian of priceless lives is inconceivable. This court will not be a party to such grievous public mischief."

It is unfortunate that there are not more courts that have the nerve to take such a stand as that taken by the superior court of Connecticut.

THE Smoot bill was introduced into Congress last April. It aims to place still greater restrictions upon medical men in prescribing narcotics. The Harrison drug law expressly provides that its limitations on dealers shall not apply to physicians in their regular professional practice. However, the officials in the Internal Revenue Bureau interpreted this law to suit themselves, and placed greater restrictions upon medical men than was intended by the framers of the law. The United States Supreme Court recently has declared some of these inconsistent and unfair regulations unconstitutional, and the Revenue Bureau, fearing that it may lose some of its power, has now come out openly in favor of the Smoot bill, which inflicts the extreme penalty on doctors who dispense narcotics unless to a patient in a hospital. It is almost incredible that a Bureau whose sole function is the collection of revenue should assume the theory that it, and it alone, is competent to direct American physicians in the practice of their profession. Moreover, if the Smoot bill should become a law, it not only will bind the doctors hand and foot as regards prescribing narcotics or treating narcotic patients, but it will open the way to still further invasion of the freedom of the medical profession. Why may not the Revenue Bureau go ahead and forbid calomel—why not forbid quinine? At the West Baden session the Indiana State Medical Association should put its stamp of disapproval upon the contemplated passage of the Smoot bill, and our views should be forwarded to the President, the Secretary of the Treasury, the Committee on Finance of the Senate, the Committee on Ways and Means of the House of Representatives, and to our respective senators and representatives.

WITH the rapid increase in the number of automobiles that are owned and operated in this country, and the traffic problems that are presented in consequence, the question arises as to why more precautions are not adopted that will eliminate the criminally careless and inefficient

driver rather than control the speed at which automobiles are to be driven. It is a well-known fact that among those who regularly drive automobiles are persons who are feeble-minded, those having very defective eyesight, or those having physical imperfections that preclude the possibility of their being safe drivers, those possessing criminal tendencies and having no respect for law or the rights of individuals, and last but not least those whose judgment is warped by alcoholic stimulants. A majority of the automobile accidents are due to the acts of drivers of the classes enumerated. Some discrimination should be made in the right to operate automobiles, and this should be governed by licenses issued only to those who are proved by a competent board to be mentally and physically trustworthy. The penalties for criminal carelessness should be severe and rigidly enforced. Furthermore, there should be no such thing as special privileges to anyone in the driving of automobiles. The idea that fire engines, ambulances, and government mail wagons shall be permitted to tear down a city's streets at a reckless rate of speed should not be considered. One of our pet peeves is the knowledge that a mail wagon that not infrequently is guided by an imbecile driver travels our city's streets with absolutely no regard for traffic regulations, going on either side of the street as suits the convenience of the driver, and going through traffic signals as though they did not exist. When an accident occurs, as it often does under such conditions, the offending party usually secures immunity because the mail wagon is government property. The time is coming when these dangerous inconsistencies will not be permitted to continue, and they would not exist now if there were more agitation concerning the matter.

DR. CHARLES W. ELIOT, president emeritus of Harvard, died recently at the ripe old age of ninety-two years. He retired from the presidency of Harvard at seventy-five, and two years later started on a trip around the world "to study." While in Ceylon he was operated for appendicitis but, notwithstanding the fact that he was seventy-eight years of age, he made a prompt recovery and regained his full vigor. He walked much and rowed a boat during pleasant weather up until he was ninety years of age, and to the last his mind was practically as keen as in earlier years. He was a man famous for independence of thought and action, and the instigator of many reforms not only in educational work but outside of his chosen profession. He once described the "scab" as a good type of American hero, and he did not hesitate to tell laboring men that, "Democracy must profoundly distrust the labor unions' too frequent effort to restrict the efficiency and output of the individual workman." He also aroused the ire of some of the church-going people by saying that "the fear of hell has not proved

effective to deter man from wrong-doing, and Heaven has never yet been described in terms very attractive to the average man or woman. Both are indeed unimaginable. The modern man would hardly feel any appreciable loss of motive power toward good or away from evil if Heaven were burnt or Hell quenched. The prevailing Christian conceptions of Heaven, and hell have hardly any more influence with educated people in these days than Olympus and Hades have. The modern mind craves a motive or leading, good for today, on this earth." In the death of Doctor Eliot the country has lost one of its foremost citizens and thinkers and a leader in rational and constructive educational methods. His interest in medical science is attested by the fact that in his will he bequeathed a sum of money to Harvard University to be used in medical research work.

THE report of the Committee on Civic and Industrial Relations published in this number of *THE JOURNAL* is worthy of the careful and serious consideration of every member of the Indiana State Medical Association. The committee has done excellent constructive work, and in consequence we look for very great improvement in the condition existing in connection with industrial practice by the physicians of Indiana. As a matter of fact what really is needed is a better understanding of conditions as they exist between employer and employee. We long have felt that the greatest stumbling block to an amicable and satisfactory settlement of claims for services rendered in industrial cases was the insurance carrier. However, as we have pointed out in these columns before, there was some reason why insurance carriers should look with suspicion upon the honesty and efficiency of some of the members of our profession, and being suspicious of a few it is quite natural that they should be suspicious of all. On the other hand, there have been very many honest and capable physicians who have had such unpleasant experiences with the insurance carriers that they have objected to industrial work on the ground that they could not afford to be wrangling with insurance carriers over the settlement of accounts for services rendered. It now develops through the investigation of our committee that all that is necessary in order to arrive at a definite and satisfactory settlement of our troubles is to get together. When the insurance carriers learn that the medical profession as a whole intends to be honest and fair, and when the medical men as a whole learn that insurance carriers desire to be reasonable, then we will come to some understanding which will be equally satisfactory to both parties. Therefore, we look with a good deal of interest to the work of our committee in bringing about a very happy solution of our difficulties. We hope that the committee will be continued, and that its work

will be as satisfactory in the future as it has been during the past year.

WHOLE Wheat has been exploited in Indiana as a cure for many diseases, and sick people have been urged to adopt it as a part of their diet on the theory that it will make them well. A well-known merchant in one of our Indiana cities was so taken up with the claim made by the Whole Wheat exploiters that he gave up a section of his store to the display of Whole Wheat and the extravagant circulars and advertising matter that goes with it. One of the circulars distinctly states that Whole Wheat greatly relieves or cures high blood pressure. The merchant had been so completely sold on the proposition that he took particular pains to tell many of his patrons that he thought that a leading physician of his city had made a serious mistake in his case by telling him that he had high blood pressure and only a short time to live when all that was needed was a diet of Whole Wheat in order to make him perfectly well. When his attention was called to the fact that he was misleading people by the extravagant claims put forth he replied that he felt that he owed it to his patrons to tell them what a great cure Whole Wheat was for any and all kinds of diseased conditions of the human body. While still boasting of being well as a direct result of adding Whole Wheat to his diet, he died suddenly from the cardiovascular renal disturbance from which he suffered, and probably he now is telling St. Peter what a great thing Whole Wheat would be if it were fed to the angels. What a pity it is that Better Business Bureaus or others do not take measures to suppress such extravagant and misleading advertising as often is connected with various food products and medicinal agents. Furthermore, it is a strange thing that so many people do not recognize the fact that education, training, and experience count for as much in knowing human ailments and how to care for them as it counts for in following any other skilled vocation. As one old philosophical farmer put it, "when a person having no knowledge of the human body or its ailments attempts to treat himself he has a damn fool for a patient and a bigger damn fool for a doctor."

WE herewith publish a map showing the location of hospitals in Indiana. There are 167 hospitals, of which 115 are for community use. The following thirty counties have no hospitals for community use: Benton, Brown, Carroll, Crawford, Dubois, Fountain, Franklin, Hancock, Hendricks, Jennings, Lagrange, Martin, Newton, Ohio, Owen, Parke, Perry, Pike, Posey, Scott, Spencer, Starke, Switzerland, Tipton, Union, Warren, Warrick, Washington, White, and Whitley. The hospitals within the state that are

available for active medical and surgical services in their respective localities are as follows:

	Total Beds
ALEXANDRIA—MADISON:	
Alexandria Hospital	12
ANDERSON—MADISON:	
Madison County Hospital (T.B.)	28
New Home Hospital	18
St. John's Hospital	100
AUBURN—DEKALB:	
Dr. Bonnell M. Souder Hospital	12
BEDFORD—LAWRENCE:	
Dunn Memorial Hospital	25
BLOOMINGTON—MONROE:	
Bloomington Hospital	35
BLUFFTON—WELLS:	
Wells County Hospital	18
BRAZIL—CLAY:	
Community Hospital	17
CLINTON—VERMILION:	
Vermilion County Hospital	45
COLUMBUS—BARTHOLOMEW:	
Bartholomew County Hospital	25
CONNERSVILLE—FAYETTE:	
Fayette Memorial Hospital	37
CRAWFORDSVILLE—MONTGOMERY:	
Ben Hur Sanitarium	10
Culver Hospital	19
CROWN POINT—LAKE:	
Lake County Tuberculosis Sanitarium	100
DECATUR—ADAMS:	
Adams County Memorial Hospital	50
DILLSBORO—DEARBORN:	
Dillsboro Sanitarium	120
ELKHART—ELKHART:	
Elkhart General Hospital	60
ELWOOD—MADISON:	
Hoppenrath Hospital	10
EVANSVILLE—VANDERBURG:	
Boehne Tuberculosis Sanatorium	80
The Hayden Hospital	40
Protestant Deaconess Hospital	120
St. Mary's Hospital	115
Walker Hospital	75
FRANKFORT—CLINTON:	
Clinton County Hospital	51
FORT WAYNE—ALLEN:	
Allen County Isolation Hospital	11
Fort Wayne Lutheran Hospital	115
Irene Byron T.B. Sanatorium	186
Methodist Episcopal Hospital	109
Dr. Pulliam's Private Sanitarium (N. & M.)	15
St. Joseph's Hospital	200
GARRETT—DEKALB:	
Sacred Heart Hospital	40
GARY—LAKE:	
Gary Hospital	100
Methodist Episcopal Hospital	100
St. Antonio Hospital	50
St. Mary's Mercy Hospital	125
GOSHEN—ELKHART:	
Goshen Hospital	38
GREENCASTLE—PUTNAM:	
Putnam County Hospital	40
GREENSBURG—DECATUR:	
Decatur County Memorial Hospital	35
HAMMOND—LAKE:	
St. Margaret's Hospital	250
HARTFORD CITY—BLACKFORD:	
Blackford County Hospital	30
HUNTINGTON—HUNTINGTON:	
Huntington County Hospital	25
INDIANAPOLIS—MARION:	
Dr. Batties Sanitarium	15
Indiana Christian Hospital	120
Indianapolis City Hospital	550

James Whitcomb Riley Hospital.....	150	LAFAYETTE—TIPPECANOE:	
Joseph Eastman Hospital.....	13	Lafayette Home Hospital.....	80
Julietta Insane Hospital.....	154	St. Elizabeth's Hospital.....	250
Methodist Episcopal Hospital.....	350	Wabash Valley Sanitarium.....	50
Mt. Jackson Sanitarium.....	32	LAPORTE—LAPORTE:	
Neuronhurst, Dr. Fletcher's Sanatorium (N. & M.).....	50	Holy Family Hospital.....	95
Norways Sanatorium.....	30	LEBANON—BOONE:	
Provident Hospital.....	30	The Williams Hospital.....	30
Robert W. Long Hospital.....	104	Witham Memorial Hospital.....	21
St. Francis Hospital.....	90	LINTON—GREENE:	
St. Vincent's Hospital.....	223	Freeman City Hospital.....	14
JEFFERSONVILLE—CLARK:		LOGANSPOUT—CASS:	
Clark County Memorial Hospital.....	36	St. Joseph's Hospital.....	75
KENDALLVILLE—NOBLE:		MADISON—JEFFERSON:	
Lakeside Hospital.....	11	King's Daughters' Hospital.....	30
		MARION—GRANT:	
		Grant County Hospital.....	45



INDIANA

• Hospital for community use. ▲ Nervous and Mental Hospital.
✕ Tuberculosis Hospital. All others established since 1920.

Total hospitals in Indiana, 167; for community use, 115; population per hospital bed, 366; percentage of beds occupied, 63; percentage of counties without hospitals, 32.6.

MARTINSVILLE—MORGAN:	
Barnard's Sanitarium	30
Colonial Mineral Springs	50
Hill House Sanitarium	60
Home Lawn Mineral Springs Sanitarium	205
Martinsville Sanitarium	110
Morgan County Memorial Hospital	30
Dr. Scherer's Sanitarium	125
Whiting Mineral Springs Sanitarium	45
MICHIGAN CITY—LA PORTE:	
St. Anthony's Hospital	100
MILAN—RIPLEY:	
Miwogco Mineral Springs & Sanitarium	120
MISHAWAKA—ST. JOSEPH:	
St. Joseph Hospital	78
MUNCIE—DELAWARE:	
Muncie Home Hospital	62
NEW ALBANY—FLOYD:	
St. Edward's Hospital	100
NEWCASTLE—HENRY:	
Miller Hospital	31
Newcastle Clinic Hospital	14
NOBLESVILLE—HAMILTON:	
Hamilton County Hospital	25
OAKLANDON—MARION:	
Sunnyside Sanatorium (T.B.)	180
PERU—MIAMI:	
Miami County Hospital	20
Wabash R. R. Employees' Hospital	35
PLYMOUTH—MARSHALL:	
Marshall County Hospital	12
PORTLAND—JAY:	
Jay County Hospital	12
PRINCETON—GIBSON:	
Methodist Episcopal Hospital	30
RENSSELAER—JASPER:	
Jasper County Hospital	17
RICHMOND—WAYNE:	
Reid Memorial Hospital	63
St. Luke's Hospital	25
ROCHESTER—FULTON:	
Woodlawn Hospital	15
ROME CITY—NOBLE:	
Kneipp Sanitarium	200
RUSHVILLE—RUSH:	
Dr. Sexton's Hospital	11
SEYMOUR—JACKSON:	
Schneck Memorial Hospital	15
SHELBYVILLE—SHELBY:	
The Major Memorial Hospital	44
SOUTH BEND—ST. JOSEPH:	
Epworth Hospital	150
Healthwin Hospital (T.B.)	115
St. Joseph Hospital	125
SULLIVAN—SULLIVAN:	
Mary Sherman Memorial Hospital	60
TELL CITY—PERRY:	
Parkview Hospital	10
TERRE HAUTE—VIGO:	
St. Anthony's Hospital	210
Union Hospital	135
UNION CITY—RANDOLPH:	
Union City Hospital	15
VALPARAISO—PORTER:	
Christian Hospital	23
VINCENNES—KNOX:	
Good Samaritan Hospital	94
WABASH—WABASH:	
Wabash County Hospital	35
WARSAW—KOSCIUSKO:	
McDonald Hospital	16
WASHINGTON—DAVISS:	
Daviess County Hospital	22
WEST BADEN—ORANGE:	
West Baden Springs Hotel Clinic	75
WINCHESTER—RANDOLPH:	
Randolph County Hospital	18
Two General Hospitals of less than ten beds	12

DEATHS

JOSEPH T. SPARKS, M.D., of Yeddo, died August 1st, aged seventy-three years.

J. FRANK POTTS, M.D., Indianapolis, died July 26th, aged sixty years. Dr. Potts graduated from the Louisville Medical College in 1889.

W. A. CONNOLLY, M.D., of Monroeville, died July 22nd, aged eighty-three years. Dr. Connolly graduated from The Columbus Medical College in 1876.

W. H. RICE, M.D., of Spencer, died July 22nd, aged seventy-one years. Dr. Rice was a graduate of the Medical College of Indiana, Indianapolis, in 1882.

J. A. DENNEY, M.D., of Portland, was buried July 30th. For thirty years Dr. Denney was a surgeon for the Chicago, Burlington and Quincy Railroad. His death occurred while in California.

W. F. SHARRER, M.D., of Delphi, died July 17th, aged eighty-four years. He was not in active practice at the time of his death. He graduated from the College of Physicians and Surgeons, Keokuk, Iowa, in 1874.

J. J. SCHWEIZER, M.D., of Santa Claus, died July 21st, aged seventy-eight years. Dr. Schweizer was born in Switzerland. He was a member of the Spencer County Medical Society, the Indiana State Medical Association and the American Medical Association.

JONAS STEWART, M.D., of Anderson, died August 5th, aged eighty-three years. Dr. Stewart served as president of the Indiana State Medical Association in 1904. Dr. Stewart was not in active practice at the time of his death. He graduated from the Long Island College Hospital, Brooklyn, in 1870.

J. M. VANDERBURG, M.D., of Albany, died August 4. Doctor Vanderburg was a member of the Delaware County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from the Eclectic College of P. and S., Indianapolis, in 1893, and from the Kentucky School of Medicine, Louisville, in 1898.

J. A. VARIER, M.D., of South Bend, died July 31st. Dr. Varier was president of the St. Joseph County Medical Society in 1901. He was a member of the St. Joseph County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association. He graduated from Cincinnati College of Medicine and Surgery in 1876.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION*. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

DR. W. S. DININGER, formerly of Columbus, Ohio, has located in Winchester and will occupy the office formerly used by Dr. F. A. Chenoweth.

It has been announced that the United States Public Health Service has issued to E. R. Squibb & Sons the first license ever granted for the manufacture and sale of erysipelas antitoxin.

THE Northeastern Indiana Academy of Medicine held a meeting at the Elks Home, in Ligonier, August 5. Dr. Edmund Clark, of Indianapolis, presented a paper on "Some Points on Gall-bladder Surgery."

DR. and MRS. A. E. RHEIN, of Rosedale, Indiana, sailed for Vienna, September 1, where he will study diseases of the eye, ear, nose and throat. He expects to be gone for a year. During his absence Dr. I. J. Gill, of Whitestown, has taken over Doctor Rhein's practice.

DOCTORS ALBERT M. COLE, RAYMOND C. BEELER and LESTER A. SMITH, of Indianapolis, have announced that they are no longer connected with the Methodist Hospital as roentgenologists and have installed complete equipment in their own offices in the Hume-Mansur Building. Dr. J. N. Collins, formerly of the x-ray department of the University of Michigan, now is associated with them.

THE United States Civil Service Commission announces open competitive examination for Social Worker (Psychiatric) and applications for this position must be on file in Washington, D. C., not later than September 21. The examination is to fill vacancies in the Veterans Bureau, and in positions requiring similar qualifications throughout the United States. Competitors will be rated on education, training and experience. Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C.

EXAMINATIONS of candidates for entrance into the Regular Corps of the U. S. Public Health Service will be held at the following places on October 4, 1926: Washington, D. C.; Chicago, Illinois; New Orleans, Louisiana; and San Francisco, California. Candidates must be not less than twenty-three nor more than thirty-two years of age and must have been graduated in medicine at some reputable medical school and have had one year's hospital experience or two years' professional practice. Requests for information or permission to take this examination should be ad-

ressed to the Surgeon-General, U. S. Public Health Service, Washington, D. C.

In addition to the articles already enumerated, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Lederle Antitoxin Laboratories:

Pituitary Extract-Lederle 20 Units.

H. A. Metz Laboratories, Inc.:

Oscodal.

Oscodal Tablets 2 Gm.

H. K. Mulford Company:

Erysipelas Streptococcus Antitoxin-Mulford.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION BUREAU OF PUBLICITY

July 12, 1926.

Meeting called to order at 4:45 P. M.

Present: Wm. N. Wishard, M. D.; S. E. Earp, M. D.; Murray N. Hadley, M. D.; and Thomas A. Hendricks, Executive Secretary.

The minutes of the meeting held June 28 read, corrected and approved.

The publicity article upon "Ice Drinks in Hot Weather" approved for release Monday, July 19.

The following bills were approved for payment:

Dolbey & Van Ausdall, stencils.....	\$ 4.00
Hume-Mansur Co., rent and light.....	2.00
L. C. Smith & Corona Typewriters, Inc.....	12.50
American Linen Supply Co.....	1.60
Central Press Clipping Service.....	5.00
The Kautz Stationery Co.....	7.40

Total.....\$32.50

The head of the National Motion Pictures Company, producers of films for boards of health in various states, appeared before the Bureau and asked the Bureau to co-operate with him in a film he is producing entitled, "How to Live Long and Well." He especially desires the Bureau's aid in depicting an annual periodic health examination.

The Bureau consented to give this aid provided the identity of the physician who would pose for the picture showing a periodic health examination, would not be disclosed in any way.

The Chairman asked the various members of the Committee to be prepared to give suggestions at the next meeting concerning the annual report of the Publicity Bureau which is to be made to the House of Delegates.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole July 19, 1926.

WM. N. WISHARD, M.D.,
Chairman.
THOMAS A. HENDRICKS,
Secretary.

BUREAU OF PUBLICITY

July 19, 1926.

Meeting called to order at 4:45 P. M.

Present: Wm. N. Wishard, M. D.; S. E. Earp, M. D.; Murray N. Hadley, M. D.; and Thomas A. Hendricks, Executive Secretary.

The minutes of the meeting held July 12 were read, corrected and approved.

The publicity article upon "Hot Weather Health Hints" read and approved for release Monday, July 26.

Suggestions were made for points to be touched upon in the annual report of the Publicity Committee, and the

Secretary was instructed to formulate a skeleton plan of the report for presentation at the next meeting of the Committee.

Letter received from the Secretary of the Indianapolis Medical Society concerning arrangements for a periodic health examination meeting October 5. The Secretary of the Bureau instructed to take this matter up with the American Medical Association.

Bureau received copy of "Echoes," publication of the State Department of Public Health Nursing. This copy contains in full the warning which shows why the Indiana State Medical Association is opposed to many of the methods advocated by Bernarr Macfadden through his various magazines.

Burton D. Myers, M. D., of Indiana University and Chairman of the Committee on Medical Education of the Indiana State Medical Association, called upon the Bureau. He complimented the Bureau upon its work and suggested that the scope of the work now being done by the Bureau be enlarged through joint action between the Bureau and Indiana University, similar to the educational program now being carried on in Michigan. The Bureau invited Dr. Myers to attend the meeting upon August 9 and to hear further details concerning this plan.

Letter received from Secretary of the Clinton County Medical Society asking for a speaker to the engagement at the Kiwanis Club luncheon Wednesday, July 21. Speaker selected by Bureau, and arrangements completed with the Secretary of the Clinton County Medical Society.

Letter received from physician at Middletown asking for material upon poliomyelitis in order that an article might be prepared for publication in the Middletown paper. Article was desired as the first case of poliomyelitis the town had ever had developed recently and the patient died, and the editor of the local paper said that he would publish an article upon the subject. Article sent to the Middletown physician.

Letter received from the Editor of the *Evansville Courier*, Evansville, Indiana, stating that he would be pleased to receive articles prepared by the Bureau, and sending best wishes to the organization.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole July 26, 1926.

WM. N. WISHARD, M.D.,
Chairman.
THOMAS A. HENDRICKS,
Secretary.

DAVIESS-MARTIN COUNTY MEDICAL SOCIETY

At the first meeting of the House of Delegates of the Indiana State Medical Association held in Marion, September 23, 1925, the following resolution was offered by the Daviess-Martin Society:

"Be It Resolved, That 'The Riley Memorial Hospital' in its (1) control, (2) management, (3) expense per patient to the individual counties of the state, (4) relationship to the medical profession of the state, meets the approval of the Indiana State Medical Association."

On motion of W. R. Davidson this resolution was referred to a committee. The chairman appointed Drs. Chas. H. Good of Huntington, M. R. Combs of Terre Haute, and Walter J. Leach of New Albany.

Friday morning, September 25, on motion introduced by the committee appointed September 23, the following resolution was carried:

"Resolved, That the resolution from Daviess-Martin County be referred to the Council, with power to investigate and report at the next annual session."

Inasmuch as the members of the Daviess-Martin County Medical Society feel that the expense of the Riley Hospital is greater to our two counties than the counties can carry, and that there exists a wide-spread misunderstanding as to the functioning of the hospital,

we are desirous of presenting our argument to the profession. There is no criticism as to the service rendered, but we suggest that there have been mistakes made over the entire state in securing this service.

The great majority of the citizens of the state think of the hospital as a charitable institution maintained by the philanthropically inclined citizens by voluntary contributions. They do not know that their county is mandated by the statutes of the state to pay \$3.96 per day for each inmate in the hospital sent by their county. Most citizens having any knowledge of the hospital at all think that all children not progressing satisfactorily to the neighborhood should be sent to "Riley." Very little regard is paid to the fact that the patient is a member of a family able to pay. Trustees and judges are often not fully informed. Has your county sent patients who should have gone to some other institution?

At a meeting of our society May 6, 1926, two solicitors acting for the Riley Memorial Hospital Fund were present. These men spent several days in Washington raising funds for the Riley Memorial Hospital. They asked us for our co-operation. We told them as a society that we appreciated the high grade of work that Riley Memorial Hospital was turning out, but inasmuch as our county was building a new hospital, and as there always was need of money for such a new institution, that we could not recommend to our friends that they donate to the Riley Memorial, but that they should, unless able to give to both, save their aid for the County Hospital. One of the solicitors read from a hospital bulletin a statement to the effect that the hospital hoped to be able soon to accommodate the private patients of the Riley Hospital staff. This is one thing to which the Daviess-Martin Medical Society objects. Keep the institution for the indigent. Let the staff take their patients to hospitals founded and maintained for private patients. We do not think it yet time for the State of Indiana to compete at Indianapolis with the various other institutions already established.

The medical profession of Indiana frequently has been told from many sources the need of a state hospital for the proper diagnosis and classification of neurological diseases. Is this to come? Will it cost the counties \$3.96 per day? Will the payment of such cost be mandatory upon the county auditor? Will the future staff of such an institution be permitted to take their private cases inside the walls of such an institution which will be founded, we have no doubt, in the beginning, for the indigent?

Do the physicians and the citizens of the state realize that the Riley Memorial Hospital is not a free or philanthropical institution but one supported by each county in direct proportion to the use made by each county?

To give you something definite please find below reports from the auditors of Martin-Daviess County covering number of admissions and expenses of patients sent to the Riley Memorial Hospital:

MARTIN COUNTY

April 1 to June 30, 1925, Inclusive.

No.	Name	Adm.	Disch.	Days	Per Diem	Total Cost
231	Slater, Wanda.....	2-28-25	4- 7-25	6	\$3.96	\$ 23.76
301	Kelly, Gertrude.....	3-24-25	4- 7-25	91	3.96	360.36
397	Ziegler, Dorothy....	5- 5-25	4- 7-25	57	3.96	225.72
Total				154		\$ 609.84

DAVIESS COUNTY

April 1 to June 30, 1925, Inclusive.

No.	Name	Adm.	Disch.	Days	Per Diem	Total Cost
9	William Limbach.....	11-20-24	4- 7-25	91	\$3.96	\$ 360.36
127	Oral Harker	12-17-24	4- 9-25	8	3.96	31.68
178	Chas. Kidwell	1-26-25	5- 9-25	38	3.96	150.48
215	Vivian Nash	2-13-25	5- 9-25	91	3.96	350.36
316	Regina Hatfield.....	4- 2-25	6-20-25	79	3.96	312.84

341	Frank	Gootee	.....	4-16-25	6-20-25	76	3.96	300.96
442	Clarence	Niem	.....	5-25-25	7- 1-25	37	3.96	146.52
Total						420		\$1,663.20
215	Vivian	Nash—Shoes rebuilt	.....					3.50
								\$1,666.70

THE DAVIESS-MARTIN MEDICAL SOCIETY.

B. O. Burress, President.

W. C. Wadsworth, Secretary.

THE ROMANCE OF THE COUNTRY DOCTOR

(Continued from Page 342)

family physician; knew all the children and grown folks in the community; the secrets of the families; in fact, he was one of them. He was an able man, due to his early training and large clinical experience. He was an able diagnostician, the first requisite of a good doctor. A leading surgeon said of him that he was very seldom wrong and all because of the knowledge he gained by histories of his families and his treatment of them. I once heard him say that a busy country doctor could not have time to carry out laboratory work and case reports. He must store them in his brain. When news of his death came to the little town with its "Main Street" the inhabitants were shocked and in sorrow because they had lost a great man, a friend, a helper, and above all, a true physician, and on the day they laid him to rest, all business was suspended, the street for blocks was roped off from his home so that the sorrowing people could all be near the one they loved, and it was said to be the largest funeral ever held in the county. Before him had gone soldiers, teachers and preachers, but none loved and honored greater than this country doctor, and he could truly say with the poet:

"These are things I would rather own
Than scepter or jeweled crown
The faith and trust of the friends I've known
And the love of my own home town.
For nothing of earth is greater than
(When the bridge of years is spanned)
The fair esteem of your fellow-man
And the love of your native land."

So, my young doctor friend, if you are here today, do not think all the glory and fame is in the big city. Out in the little village or town can be found just as true happiness and success as you will find in the big cities with their great "White Ways."

They tell this incident in the life of Henry W. Grady, the great orator of the south. Having gone to the capitol of our country he stood under the dome of that magnificent building and as he looked about and thought of the senate, house, supreme judges, president and various departments of the government, he thought, "Here is the glory and power of the nation." That night he went across the Potomac and down among the hills of Virginia, and stayed in the home of a

friend. After staying the night and enjoying the generous hospitality of his friend, he said: "No, I was mistaken; the real power and glory of our nation is not in Washington but out around the fireside of the American home, with its teachings of loyalty and devotion to home, country and God." Changing the application to our profession, I sometimes think the greatness of our profession is in the college, the laboratories, and big cities with its surgeons and physicians; but when I think that eighty per cent of our practice is under the general practitioner and the country doctor, I wonder if it is not like our country. When I read the history of our profession, I find that it was a country doctor of England, Jenner, who, watching the milkmaid, discovered the prevention of smallpox. It was a country doctor, Robert Koch, who found the tubercle bacillus. It was a country doctor, Crawford W. Long, under his apple tree in Georgia, who gave the first anesthetic; and along with it McDowell performed the first ovariectomy. Today the mecca of American surgery is in a little country town, away up along our northern border, Rochester, the home of the Mayos. I might go on; but it only proves that great physicians can be found wherever there are human ills.

I would not pluck from the brow of our city doctor any worthy laurels, but I am only trying to show the young man just starting that the country doctor has a wonderful field for work and success, and with all standing together, city and country, our great profession will continue to advance and remain, in my judgment, God's greatest instrument to keep people well and strong.

So medicine will continue its onward upward flight,
Sometimes in darkness, but ever leading toward the light;
Led by men of vision and science true,
Always to help mankind and never you.

From Hippocrates to this great hour,
Such work and deeds have ever been our most endearing flower,
With no thought of worldly goods or fame,
But to heal the sick and leave an honored name.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

TRIBASIC CALCIUM PHOSPHATE.—Tertiary Calcium Phosphate Tribasic calcium phosphate contains approximately 85 percent of $\text{Ca}^3 (\text{PO}_4)_2$. It has been proposed for use as an antacid. It has the advantage over alkaline hydroxides, such as magnesium hydroxide, and alkali carbonates, such as sodium bicarbonate, in that, being insoluble, it neutralizes the excess of acid in the stomach but does not produce systemic alkalization. It has been claimed that tribasic calcium phosphate is somewhat constipating.

CALCIUM PHOSPHATE TRIBASIC-P. W. R.—A brand of tribasic calcium phosphate—N. N. R. Powers-Weightman-Rosengarten Co., Philadelphia.

TRIBASIC MAGNESIUM PHOSPHATE.—Tertiary Magnesium Phosphate. Tribasic magnesium phosphate contains approximately 70 per cent $Mg_3(PO_4)_2$. Tribasic magnesium phosphate has been proposed for use as an antacid. It has the advantage over alkali hydroxides, such as magnesium hydroxide, and alkali carbonates, such as sodium bicarbonate, in that, being insoluble, it neutralizes the excess of acid in the stomach but does not produce systemic alkalization. It has been claimed that tribasic magnesium phosphate has a laxative action.

MAGNESIUM PHOSPHATE-P. W. R.—A brand of tribasic magnesium phosphate—N. N. R. Powers-Weightman-Rosengarten Co., Philadelphia.

SILVOL BOUGIES 5 PER CENT.—Bougies weighing 0.81 Gm. and containing silvol (New and Nonofficial Remedies, 1926, p. 373) 5 per cent in a base composed of oil of theobroma, wool fat, white wax, acacia and glucose. Parke, Davis & Co., Detroit.

SILVOL OINTMENT 5 PER CENT.—An ointment containing silvol (New and Nonofficial Remedies, 1926, p. 373), 5 per cent, in a base composed of petrolatum, wool fat, benzoated lard and white wax. Parke, Davis & Co., Detroit.

VAGINAL SUPPOSITORIES SILVOL 5 PER CENT.—Suppositories weighing 8.45 Gm. and containing silvol (New and Nonofficial Remedies, 1926, p. 373), 5 per cent, in a base composed of gelatine and glycerin. Parke, Davis & Co., Detroit. (*Jour. A. M. A.*, July 10, 1926, p. 99).

PITUITARY LIQUID (SURGICAL)-ARMOUR.—A slightly acid, aqueous solution containing the water-soluble principle or principles of the fresh posterior lobe of the pituitary body of cattle, free from preservative. It is standardized to have twice the strength of solution of pituitary, U. S. P. X. For a discussion of the action, uses and dosage, see New and Nonofficial Remedies, 1926, pp. 281-283. The product is supplied in 1 cc. ampules. Armour and Co., Chicago.

TETRABROMOPHENOLPHTHALEIN SODIUM SALT-EASTMAN.—A brand of tetrabromophthalein sodium—N. N. R. (formerly called tetrabromophthalein sodium, New and Nonofficial Remedies, 1926, p. 162). Eastman Kodak Co., Rochester, N. Y.

TETRAIODOPHENOLPHTHALEIN SODIUM SALT-EASTMAN.—A brand of tetraiodophthalein sodium—N. N. R. (formerly called tetraiodophthalein sodium, New and Nonofficial Remedies, 1926, p. 163). Eastman Kodak Co., Rochester, N. Y. (*Jour. A. M. A.*, July 24, 1926, p. 245).

PROPAGANDA FOR REFORM

SHOE DYES AND ANILINE POISONING.—Serious poisoning with the now widely used shoe dyes is by no means of uncommon occurrence. The toxic ingredient is the solvent of the pigment and appears to have been either nitrobenzene or aniline. The shoe dyes containing aniline are relatively inoffensive in odor, and for this reason are the more insidious, though less toxic than preparations containing nitrobenzene. The Chicago department of health will require that all shoe dyes bear a warning of their danger. (*Jour. A. M. A.*, July 3, 1926, p. 34).

FILLING THE PHYSICIAN'S PRESCRIPTION.—The latest report of the Connecticut Agricultural Experiment Station notes that, of about 300 samples of drugs examined, nearly 30 per cent were substandard or otherwise illegal. An interesting departure from the usual program of inspection is represented by the study of the strength and quality of medicaments obtained on physicians' prescriptions. Three simple prescriptions were chosen. In the case of a prescription calling for a solution of potassium iodide of definite strength, twenty-seven of fifty-seven samples examined were within 5 per cent of the strength demanded; fifteen were within 10 per cent of that strength, and fourteen varied from the required strength by more than 10 per cent. Again, in the instance of a prescription

calling for a solution of arsenous acid of the strength stated in the United States Pharmacopeia, two of twenty-two samples examined were not the article demanded but another preparation of like arsenic content (Fowler's solution); nine varied from the required strength by more than 10 per cent, and ten samples were within 10 per cent of the strength demanded. The third prescription called for aromatic spirit of ammonia. Of forty-three samples examined, twenty-five were less than 90 per cent of the required ammonical strength. (*Jour. A. M. A.*, July 3, 1926, p. 35).

THE GERMICIDAL PROPERTIES OF SOAP.—The assertion that solutions of soap may exert germicidal effects is credited to Robert Koch. His assertion has not been generally accepted. The customary view is that the value of soap rests on its cleansing powers, that is, by its property of removing germs mechanically. Lately, however, it has been shown that soaps are destructive to many varieties of microorganisms. Thorough washing of the hands with ordinary soap will destroy any adhering diphtheria bacilli, streptococci and pneumococci. There are microorganisms that seem to be unaffected by the soaps of some of the fatty acids. Foreign substances interfere markedly with germicidal action of soap. (*Jour. A. M. A.*, July 3, 1926, p. 37).

DIATHERMY.—For the local application of medical diathermy, that is, the heating within physiologic limits of well defined parts of the body, it is permissible to raise the temperature to from 40 to 45 C. (104 to 113 F.) with the proviso that the individual tolerance be taken into consideration. Temperatures beyond 45 C., while not necessarily leading to complete coagulation of albumin, produce injury in the tissues. In general diathermy, usually called autocondensation, the safety limit is the raising of the temperature up to 2 degrees C. (3.6 degrees F.) above the normal. Higher temperatures are apt to lead to severe disturbances. The desirable physiologic and therapeutic effect is brought about by moderate heating, causing an active hyperemia and the subsequent amelioration of the local metabolism. (*Jour. A. M. A.*, July 3, 1926, p. 50).

GLYEUTHYMENOL.—In the information furnished the Council on Pharmacy and Chemistry by the proprietors, Glycerthymenol was stated to have the following composition: thymol, 30 grains; menthol, 20 grains; eucalyptol, 20 minims; synthetic oil of wintergreen, 30 minims; Indian gum powder, 3½ pounds; sodium benzoate, 10 ounces; glycerin, 2½ gallons; zinc sulphate, 6 ounces, and water, 7½ gallons. The Council reported that the advertising designates Glycerthymenol as a "vaginal prophylactic" and stresses its use as a preventive of gonorrhea and as a contraceptive. The Council concluded that Glycerthymenol is an unscientific mixture that is sold with claims which are misleading and unwarranted and that its use is inimical to the public health. (*Jour. A. M. A.*, July 3, 1926, p. 51).

METHENAMINE.—Methenamine is the name now used in the new U. S. P. X., for the substance described in the old pharmacopeia as hexamethylenamine; it is a more convenient contraction of the scientific name hexamethylenetetramine. (*Jour. A. M. A.*, July 3, 1926, p. 51).

THE ACTION OF ACETANILID.—The use of acetanilid, phenacetin, and other aniline derivatives may bring about symptoms similar to those of aniline poisoning. For acetanilid it has been shown that, like the mother substance, aniline, it also fails to produce methemoglobin despite the allegations of a positive sort in the medical literature. The action of acetanilid on the blood, heart, and circulation is essentially the same as that of aniline. Both form para-aminophenol in the body, and this may account in part for the cyanosis sometimes observed. Prolonged administration of sublethal doses of acetanilid also produces anemia and emaciation. (*Jour. A. M. A.*, July 10, 1926, p. 103).

ANIMASA NOT ACCEPTABLE FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Animasa,

according to the Organotherapeutic Corporation, New York, is "a preparation obtained from intima and media of arteries of young and sound fat cattle, foetal extract, by-products of erythrocytes and serum." According to the Organotherapeutic Corporation, Animasa represents "The new method of treating hypertonus and arteriosclerosis." The Council found Animasa unacceptable for New and Nonofficial Remedies because it is a preparation of indefinite composition; because no evidence is submitted to show that its composition and uniformity are controlled; and because it is marketed with unwarranted therapeutic claims. (*Jour. A. M. A.*, July 10, 1926, p. 116).

SULCITACIUM NOT ACCEPTABLE FOR N. N. R.—The Council on Pharmacy and Chemistry reports that "Sulcitacium" is the name applied by the Davis-Johnson Co., Chicago, to capsules proposed for the treatment of hypertension. The advertising which the Davis-Johnson Co. sends out contains no definite statement of the composition of Sulcitacium; it is declared to be "a combination of the soluble mineral salts found in the normal blood plasma." The Council states that, as evidence for the effectiveness of treatment with Sulcitacium, case reports by a physician are offered; that there appears to be no support, either in physiology or in internal medicine, for the claim that administration of any quantity of inorganic salts normal for the blood will control essential hypertension; and that the records of the cases do not allow of the conclusion that the use of the remedy causes the continued lowering of blood pressure. The Council declared Sulcitacium unacceptable for New and Nonofficial Remedies because its composition is not declared and because the therapeutic claims advanced for it are not supported by acceptable clinical evidence. (*Jour. A. M. A.*, July 10, 1926, p. 116).

L'OREAL HENNE.—The A. M. A. Chemical Laboratory found the hair dye L'Oreal Henne' (F. L. Lebeau, Inc., New York City) to consist of two packages: one containing a white powder, the other a yellow substance. The white powder responded to tests for sodium perborate. The yellow substance was apparently composed of iron and copper salts with pyrogallol and vegetable matter. (*Jour. A. M. A.*, July 10, 1926, p. 118).

THE PRESENT STATUS OF B. ACIDOPHILUS AND BULGARICUS THERAPY.—Recently the question was brought before the Council whether the successful implantation of *B. acidophilus* might be secured in other ways than through administration of *Bacillus acidophilus* milk, and the question was also raised whether *Bacillus bulgaricus* preparations were worthy of continued recognition. To obtain information on these and related questions, a questionnaire was sent by the chairman of the Council's Committee on Lactic Acid Ferment preparations to his associates on the committee and to others known to have studied the *Bacillus acidophilus* problem. As a result of the information which was obtained, the Council decided: (1) *Bacillus acidophilus* milk and broth cultures and concentrates of *B. acidophilus* will continue to be accepted, provided the preparations are marketed under non-proprietary descriptive names; provided the number of viable organisms contained in a stated quantity at the time of sale is declared on the label or in the advertising; provided the label bears an expiration date; and provided that for broth cultures and concentrates the advertising emphasizes the need of carbohydrate (lactose or dextrin) administration. (2) Other preparations of *B. acidophilus*, such as tablets, emulsions and candies will not be accepted unless adequate evidence is presented to show that the implantation of *B. acidophilus* may be secured through their use. If such evidence become available, they will be accepted under the conditions outlined under (1). (3) *Bacillus bulgaricus* preparations will be retained, provided the claims for these are revised in accordance with modern opinion to show that they are considered to be of value only in the preparation of soured milk and that all claims for their intestinal implantation and for their value as external application be discontinued. (*Jour. A. M. A.*, July 17, 1926, p. 172).

THE EFFECT OF CARMINATIVE VOLATILE OILS.—An investigation into the effects of the oils of peppermint, cinnamon, anise, caraway, wintergreen, fennel and orange indicates that the primary effect of these carminatives in concentration and doses comparable to those used clinically, is to relax the stomach and increase the tone and contraction of the small intestine and colon. Relief of discomfort by carminatives after a full meal can be understood easily in view of the relaxation produced by them; while in the intestine the effects of distension with gas or fluids would be relieved by increase in tone and contraction. (*Jour. A. M. A.*, July 17, 1926, p. 176).

THE LAMAR REDUCING SOAP FRAUD.—H. J. Brown, of Cleveland, Ohio, has been quacking it for years. His latest piece of fakery was carried on under the trade-name, "LaMar Laboratories"—although there were no laboratories—and the product he sold was LaMar Reducing Soap. Every physician knows, and the majority of intelligent laymen know, that there is no soap or other substance which, when rubbed on the surface of the body, will reduce weight. Nevertheless, newspaper and magazine publishers have accepted H. J. Brown's money and have aided him in swindling the public with the LaMar Reducing Soap. Now, the postoffice authorities have denied the further use of the mails to this fake; but, while the mail order swindler lays himself open to prosecution, the newspaper or magazine which makes the swindle possible is exempt from punishment. (*Jour. A. M. A.*, July 17, 1926, p. 189).

BANNERMAN'S INTRAVENOUS SOLUTION.—Physicians are receiving advertising for Bannerman's Intravenous Solution proposing its use in the treatment of varicose veins. This same remedy is recommended also for "Tuberculosis," "Pneumonia-Influenza," "Septicemia and Acute Infectious Diseases," "Anemia," "Rheumatism," "Syphilis," "Nephritis," "Chronic Endocarditis," "Chronic Abscess," "Arthritis Deformans," and "Puerperal Sepsis." The nostrum is marketed by the Wm. Bannerman Co., Chicago. The original Bannerman was a veterinarian. The preparation was refused recognition by the Council on Pharmacy and Chemistry in 1915, because vague, indefinite, and misleading statements were made in regard to its composition; because it was recommended for anemia, tuberculosis and syphilis under grossly exaggerated and unwarranted claims; and because the intravenous injection of complex and indefinite mixtures is unscientific and dangerous. It is not doubted that this mixture injected intravenously might cause "the veins for a certain distance from the point of injection" to become "more or less indurated" or "after from one to three or more injections . . . practically obliterated." Nor is there any doubt that "a fee of from \$25 to \$300 can be had for the treatment." There is, however, a very great certainty that the intravenous injection of such a shotgun mixture may result in far more serious consequences to the patient than the payment of a large fee and the induration or obliteration of a few veins. (*Jour. A. M. A.*, July 17, 1926, p. 191).

CLASSIFICATION OF MERCURIALS.—The A. M. A. Chemical Laboratory has attempted to work out a method of laboratory investigation and classification of mercurials. A method of evaluating the ionization of the mercury in mercury compounds used in medicine in the belief that this may have a direct bearing on their local irritant and antiseptic action was determined. This method was a modification of the Dreser yeast method which has been adopted in the new Pharmacopeia as a means of testing the silver protein compounds contained in the book. According to the results yielded with this method, the commonly used mercury compounds fall into four distinct classes from the standpoint of ionization. Expressing this in terms of "Efficiency for equivalent of mercury" with mercuric chloride as unity, the first class comprises mercuric bromide and chloride, mercuric potassium iodide, mercuric succinimide, sublimine and metaphen, decreasing in this order from 1.7 units to 0.36 unit. In the second class come the freely ionizable compounds with correspondingly mild irritation; mercuric oxycyanide.

cyanide and benzoate, and meroxyl. The third group includes mercurous and the mercury-fluorescein dyes, merurochrome, and flumerin. In the fourth class come afridol, which does not ionize enough, and mercuric salicylate, which does not dissolve sufficiently to affect the yeast sensibly. (*Jour. A. M. A.*, July 24, 1926, p. 246).

NATIONAL GOITER TREATMENT.—At Mason City, Iowa, a concern known as the "National Goiter Treatment Corporation" has been treating goiter on the mail order plan. The A. M. A. Chemical Laboratory examined two specimens of the "treatment." One contained the equivalent of 0.12 Gm. (1.8 grains) of potassium iodide per dose. The dangers of administering iodides in cases of hyperthyroidism are obvious enough to physicians, but would not be obvious to the general public even if those who took the National Goiter Treatment were in a position to know what they were getting. (*Jour. A. M. A.*, July 24, 1926, p. 263).

MURARSENIDE NOT ACCEPTABLE FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Murarsenide is the non-informing name applied by the Miller Biological Laboratories, Los Angeles, California, to a solution marketed in the form of ampules, claimed to contain in each 10 cc. (one ampule): sodium dimethylarsenate (sodium cacodylate), 0.7 Gm; mercuric oxycyanide, 0.004 Gm; and sodium iodide, 0.5 Gm. The preparation is proposed for the treatment of syphilis and is to be administered intravenously. The advertising leads to the inference that "Murarsenide" presents an advance in the therapy of syphilis and that the arsenic compound contained in it is an advance over arsphenamine. The claims of originality are unwarranted. Preparations containing sodium cacodylate, a salt of mercury and an alkali iodide have been marketed for many years; further, sodium cacodylate has been shown to be inefficient in the treatment of syphilis; and there is no rational basis for the simultaneous administration of arsenic, mercury and iodine in the treatment of syphilis. The Council found Murarsenide inadmissible to New and Non-official Remedies because it is an unscientific pharmaceutical mixture marketed with misleading statements of composition, under a non-informing name and with unwarranted therapeutic claims. (*Jour. A. M. A.*, July 31, 1926, p. 343).

PHENOSEPTINE POWDER AND PHENOSEPTINE CONES NOT ACCEPTABLE FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Phenoseptine Powder, marketed by the Mertes Remedy Company, San Francisco, California, is stated to be composed of "Boric Acid 75 per cent; Zinc Phenolsulphonate 18 per cent; Phenol, Menthol, Thymol and Eucalyptol 7 per cent." The Council further reports that in contradiction of the claims in the advertising, the Mertes Remedy Company states that Phenoseptine Cones are made from the formula of Phenoseptine, only adjusted to meet that form of administration. The Council found Phenoseptine Powder and Phenoseptine Cones unacceptable for New and Non-official Remedies because their composition is indefinite and needlessly complex; because they are marketed under names that are not descriptive of their composition and with therapeutic claims that are unwarranted; and because the recommendation on the trade packages invites their ill-advised use by the public in diseases which require correct diagnosis and medical treatment. (*Jour. A. M. A.*, July 31, 1926, p. 343).

TRYPSOGEN.—Trypsogen, G. W. Carnrick Company, is a pancreatic preparation for oral use claimed to have a curative action in diabetes. In an article published under the auspices of the Council on Pharmacy and Chemistry it is stated that reliance on the oral administration of the pancreatic preparations thus far prepared has so little justification in the treatment of diabetes that such practice merits the most vigorous condemnation. It is pointed out that the claim that such preparations exert, in some mysterious manner, a rejuvenating or stimulating action on the diseased pancreas is based on uncontrolled clinical observation and chiefly on testimonials deserving no more consideration than do the similarly ill founded

claims of the vendors of "patent medicines." (*Jour. A. M. A.*, July 31, 1926, p. 345).

BOOK REVIEWS

GOULD'S MEDICAL DICTIONARY. By George M. Gould, A.M., M.D. Edited by R. J. E. Scott, M.D. Based on recent medical literature, with many tables. Flexible binding. Price \$9.00. P. Blakiston's Son & Co., Philadelphia, 1926.

Over 700,000 volumes of Gould's Medical Dictionary have been distributed over the world. This fact alone proves the practical usefulness of the Gould Dictionary. In reality this is the eighth revised edition that has just come from the press. It is based upon current medical literature, and contains the terms in use in related sciences such as chemistry, pharmacy, biology, etc. About 76,000 words are included, and 5,000 of these are entirely new, words which are not ostensible combinations of old words that merely take up room without adding to the value of the work but legitimate *new* terms. Important features of this last volume are the larger and bolder type, the inclusion of additional pictures, and the increase in the size of the volume. Mention also may be made of the many abbreviations now employed in current medical literature. The book is of convenient size, and it is intended for the use of the busy practitioner. It is bound in limp leather, the mechanical work is excellent, and with all it is a highly satisfactory work. We would have been better pleased with it had it been thumb indexed throughout, but that is a matter of minor consideration. We heartily commend the book, for we know of nothing that is better.

A BIPOLAR THEORY OF LIVING PROCESSES. By George Crile. Edited by Amy F. Rowland. New York: The Macmillan Company, 1926.

A distinguished American surgeon presents, in this volume, his theory of the nature of life. He seizes upon Mathews' statement that the difference between the living and the lifeless is a difference in the energy content of the molecule and proposes the theory that living organisms are simply bipolar electric mechanisms. The book is well written and contains an excellent bibliography.

MATERIA MEDICA AND THERAPEUTICS, INCLUDING PHARMACY AND PHARMACOLOGY. By Reynold Webb Wilcox, M.A., M.D., L.L.D., D.C.L., Professor of Medicine (retired) at the New York Post-Graduate Medical School and Hospital, etc. Eleventh edition. Revised in accordance with the U. S. Pharmacopœia, X. Price \$5.00. Philadelphia, P. Blakiston's Son & Co., 1926.

Eleven editions attest the value of this popular work on Materia Medica and Therapeutics. The reviewer studied this text-book in college and is prepared to recommend this latest edition. It is both clear and concise, all repetitions have been avoided and an exhaustive index has been added. The author is correct in claiming that this book offers to the medical student and to the practitioner a very complete presentation of the resources at our command, how they act, and, finally, how to employ them.

HEADACHE: ITS CAUSES AND TREATMENT. By Dr. Thomas F. Reilly. P. Blakiston's Son & Co., Philadelphia, 1926. Cloth. Price \$3.00.

The author divides headaches into three classes: toxic, mechanical, and functional or reflex. He points out the necessity of making a proper diagnosis, after which he recommends therapeutic treatment which in some instances is directed to the headache itself, and in other instances is directed to treatment of the cause. The book is eminently practical and thoroughly interesting.

MODERN METHODS OF AMPUTATION. By Thomas G. Orr, A.B., M.D., F.A.C.S., Professor of Surgery,

University of Kansas. Cloth. Price \$3.50. Pages 117, with 125 illustrations. St. Louis. C. V. Mosby Company, 1926.

Taylor has attempted to present a brief and concise study of the methods of amputation that are practical and workable. The chapter on cinematoplasic amputations is therefore brief. The Chopart and Pirogoff methods are not described and the reviewer agrees that they seldom result in satisfactory stumps. The technique of the Syme amputation is adequately presented, but no mention is made of Farabeuf's sub-astragaloid disarticulation, and this is one of the most satisfactory of the modern methods of amputation.

The author draws attention to the fact that there is no portion of the human skeleton bearing direct weight which is covered with muscle, and muscle flaps are not necessary or desirable to make good smooth, well-shaped stumps. The injecting of nerves with 95 percent alcohol, for the prevention of neuromata, as recommended by Huber and Lewis, is advised.

The author states in his preface that the chapter on artificial limb fitting is brief because to discuss it fully "would require a volume in itself." He then devotes thirty percent of his text to this topic!

ABT'S PEDIATRICS. By 150 specialists. Edited by Isaac A. Abt, M.D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes totaling 8,000 pages, with 1,500 illustrations, and separate index volume free. Vol. III, IV, V, VI, VII and VIII. Philadelphia and London: W. B. Saunders Company, 1924-1926. Cloth. \$10.00 per volume. Sold by subscription.

Volumes I and II, having been previously reviewed in these columns, will not be included in this resume of the series, which is now completed by the very recent appearance of the final volume.

Volume III deals with gastro-intestinal physiology, nutritional disturbances, mouth, tongue, nose, pharynx, orthodontia, harelip, etc., gastro-intestinal tract, liver, pancreas, respiration, nose, larynx, respiratory disease and pneumonia.

Volume IV takes up the pleura, lungs, thorax, circulation, heart, blood-vessels, the blood, endocrine organs, spleen, lymph-nodes, kidney, bladder, urine, male and female genitals.

Volume V is concerned with the face and jaws, orthopedic surgery, tuberculosis, hereditary syphilis, infectious diseases, infection and immunity.

Volume VI covers body temperature, infectious diseases (continued), anesthesia, general and local, peculiarities of surgery in childhood, fetal malformations, vulvovaginitis, arthritis deformans.

Volume VII—physiology of the nervous system, surgery of the head and spinal cord, diseases of the nervous system, psychopathology of child, defects of speech, sexual life of child.

Volume VIII treats of diseases of the skin, diseases of the ear, diseases of the eye, hospitals for infants and children, medico-legal questions, tumors of infants and children, parasites. The last named chapter is novel in that it probably contains as exhaustive a treatise in as condensed space as has ever been published on this subject. In fact the same might be said of the big majority of topics discussed in this most admirable and comprehensive compilation. Among the outstanding features of the whole work should be mentioned the conservatism with which the collaborators have been collected, the evidence of the broad practical experience of the author, and the freedom with which he has drawn

upon the literature both for the interest and elucidation of his subjects. Though the occasional appearance of a typographical error is slightly annoying, yet the freshness and volume of information and its convenient arrangement, climaxed by a separate index volume, make for this work a place which fairly supplants all pediatric texts of today.

EAT YOUR WAY TO HEALTH. By Robert Hugh Rose, A.B., M. D., Instructor, Post Graduate Medical School, New York. New edition, thoroughly revised and enlarged. Cloth, price \$2.00. Funk and Wagnalls Company, New York and London, 1924.

The author says this is a scientific system of weight control, and the information contained in the book is the result of twenty years of study of the relationship of diet and weight. It is nontechnical and intended as a guide for the layman. It contains 252 complete menus of tasty, easy to prepare foods, with recipes for weight reduction, weight increase, and weight maintenance.

HANDBOOK OF DISEASES OF THE RECTUM. By Louis J. Hirschman, M. D., F.A.C.S. Ex-chairman, Section on Gastro-enterology and Proctology A.M.A.; Ex-president, American Proctologic Society; Professor of Proctology, Detroit College of Medicine, etc. With 250 illustrations mostly original and five colored plates. Fourth edition revised and rewritten. St. Louis: The C. V. Mosby Company, 1926. Price, \$6.50.

This fourth edition presents a generous revision of a popular textbook. As in previous editions, there has been no attempt to in any way include any major surgery. A careful description of the technic of sacral anaesthesia is given—the author is quite right in remarking that with its perfection, "in addition to local and regional anesthesia, practically every operation on the anus and rectum can be performed by any qualified surgeon without general anesthesia." It is interesting, however, to note that on page 218 he remarks that "the treatment of fistula, as a general thing, is best accomplished under general anesthesia." No mention is made of Mr. Goodsall's teaching that in fistula the internal opening and the external ones usually bear a definite relationship to each other. Hirschman's modification of Ball's operation for puritis ani is adequately described. The various methods of treating hemorrhoids, including the "injection treatment," are well presented. The general practitioner will find that this book is a safe guide for the management of his rectal cases.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1925. Cloth. Price, postpaid, \$1.00. Pp. 90. Chicago: American Medical Association, 1926.

This volume contains the reports of the Council on Pharmacy and Chemistry that have been adopted and authorized for publication during 1925. Some of these reports have appeared in *The Journal of the American Medical Association*. Others are now published for the first time.

The annual volumes of the "Council Reports" may be looked upon as the companion volumes to New and Non-official Remedies. While the latter describes the medicinal preparations that are found acceptable, the former contain reports on the products that were not accepted. The present volume contains reports on the following products which the Council denied admission to New and Nonofficial Remedies: Agrilin; Benzyl Viburnum Compound; Bichloridol and Salicidol; "Colloidal Gold"; Diabesan; F. & R.'s Genuine Gluten Flour; Geroxide; Ijoyt's Gluten Bran Flakes; Horse Dung Allergen-Squibb, House Dust Allergen-Squibb, LePage's Glue Allergen-Squibb and Street Dust Allergen-Squibb; Incitamin; Liposan; Loeser's Intravenous Solution of Calcium Chloride; Loeser's Intravenous Solution of Sodium

Thiosulphate; Mercodel; Orargol; Parathyroid with Calcium; Pollen Extract Gramineae, Pollen Extract Chenopodiaceae, Pollen Extract Ambrosiaceae and Pollen Extract Artemisias-P. D. & Co.; Rayminol; Rheumeez; Mitysol; Some Wagner's Preparations; Tablets Calcreose with Iodine; Digifortis; Trepol and Neotrepol; Tricalcine; Viriligen, Glandular Comp. and Pineal Comp.; Vitalait (Vitalait Laboratory, Inc., Newton Centre, Mass.) and Vitanol.

This volume also contains reports on products which were included in former editions of New and Nonofficial Remedies but which will not appear in the 1926 edition because they were found ineligible for further recognition.

The volume contains reports of a general nature: for instance a report on the use and utility of digestive enzymes in therapeutics and a preliminary report on spleen and red bone marrow.

Physicians who keep fully informed in regard to the value of proprietary remedies will wish to own this book.

NEW AND NONOFFICIAL REMEDIES, 1926, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1926. Cloth. Price, postpaid, \$1.50. Pp. 459+XLIII. Chicago: American Medical Association, 1926.

New and Nonofficial Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually provides the American medical profession with disinterested critical information about the proprietary medicine which are offered to the profession and which the Council deems worthy of recognition.

An examination of the preface shows that in addition to inclusion of the new drugs which were accepted during the past year, the book has been extensively revised. Many of the preparations listed in the previous edition have been omitted and the descriptions of others have been revised to bring the statements into accord with present day knowledge. Among the products that were accepted during the past year and which are included in the new edition are scarlet fever toxin preparations used to determine susceptibility or to establish immunity and curative scarlet fever antitoxin; a parathyroid extract of determined effect on the calcium content of the blood serum; two antimony compounds for use in trypanosomic infections; tryparsamide, developed in the Rockefeller Institute for Medical Research; tetraiodophthalein sodium for the visualization of the gallbladder and hexylresorcinol, developed by Veader Leonard.

The book contains a cumulative appendix (printed on buff paper), which is a list of references to reports of the Council and to other publications dealing with articles not described in New and Nonofficial Remedies. This appendix is thus a valuable and quite extensive bibliography of proprietary and unofficial preparations.

In reference to the work of the Council on Pharmacy and Chemistry, the Board of Trustees of the American Medical Association in their report to the House of Delegates stated that the success of the Council's endeavors will depend less on the work done by the Council than on the support that is given by the rank and file of the medical profession and that this support can be most efficiently given by physicians (and with fullest justice to themselves and their patients) by confining their use of proprietary medicines to those that have been found acceptable for inclusion in New and Nonofficial Remedies. The physician who desires to support the Council actively should therefore obtain a copy of the 1926 edition. Every physician has need for a book of reference such as this volume to which he may turn for trustworthy information with regard to proprietary medicines.

DIFFERENTIAL DIAGNOSIS. By M. Matthes, M.D., Professor of Medicine and Director of the Medical Clinic, University of Königsberg. Authorized Translation of the Fourth German Edition, with Extensive Additions, by I. W. Hield, M.D., and M. H. Gross, M. D., New

York City. One Hundred and Seventy-six Illustrations, some in Color. P. Blakiston's Son & Co., Philadelphia. Cloth, \$12.00.

This is an English translation of the last or fourth German edition of Matthes monumental work on the differential diagnosis of internal medicine, and contains extensive additions by the American editors. It is one of the noteworthy contributions to medical literature and stands out as being intensely practical because the author has followed out his determination to present methods of absolute clinical value only and the opinions are authoritative when coming from such a noted teacher and one having so many years' experience in clinics and private practice. Each individual disease is discussed singly and its most characteristic clinical symptoms explained without reference to any other apparently allied syndrome. The book will prove a valuable addition to the library of any clinician and is especially adapted to the use of medical students who should profit by having such a comprehensive and trustworthy book covering the very practical side of medicine. The translators have made extensive additions and it includes American and English methods in literature as fully as possible.

THORACIC SURGERY. The Surgical Treatment of Thoracic Disease. By Howard Lilienthal, M.D., Professor of Clinical Surgery at Cornell University Medical School. Two Octavo Volumes Totaling 1,924 Pages, with Ninety Illustrations, Ten in Color. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$20.00.

It has been a pleasant task to review this two-volume work on "Thoracic Surgery." Dr. Lilienthal has produced a most creditable monograph and we are glad to recommend it to the members of the medical profession. The author is to be congratuated upon the 94 illustrations which illuminate the text.

The second chapter deals with physiology and is written by Evarts Graham of St. Louis. Graham presents his well known views on the subject of pneumothorax and replies to Duval's criticisms of his work. It is interesting to note that the first five illustrations in this book are really adapted from Garre, these illustrations which represent Lilienthal's conception of the mechanics of an open pneumothorax are in direct conflict with the teachings of Graham. Chapter three is by Leopold Jaches. It deals with the Roentgen examination and diagnosis of diseases of the chest. The topic of local anesthesia is inadequately presented—paravertebral dorsal block is not even mentioned. Branower contributes the chapter on general anesthesia, and this is likewise too briefly considered. The surgery of the mediastinum and the oesophagus is presented in the instructive manner that one would expect because of Lilienthal's pioneer work in this field. The surgery of the heart is covered in thirty-two pages; the author seems to prefer the Duval-Barasty exposure. William Chittenden Lusk has written a short chapter on the intravascular treatment of thoracic aneurysm with gold wire and galvanism. The subject of acute and subacute empyema forms one of the outstanding chapters of Volume I. For the treatment of this condition Lilienthal recommends a minor thoracotomy with airtight drainage followed, if course is unsatisfactory, with major intercostal thoracotomy with rib retraction and full exploration of chest. The reviewer is convinced that the Mazingo procedure with thorough employment of Dakin's solution will render other operative measures unnecessary except in very rare instances—the author does not describe this procedure. The arrangement of the topics in the first volume is open to criticism, the chest wall is the title of chapter XV, while it should have logically followed chapter VII; Traumatic Asphyxia is described under injuries of the mediastinum.

Volume II opens with a consideration of chronic empyema. The author says, "before 1915 I had treated these cases by some form of chest collapsing operation,"

(Continued on Adv. Page xx)

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BOOK REVIEWS

(Continued on Page 394)

but struck with the advantages and simplicity of an operation which I had devised for the treatment of acute and subacute cases, major intercostal theracotomy with lung mobilization, I decided to apply its principles to the treatment of chronic cases." A careful description of this method follows. This chapter must be studied by all those who attempt to treat chronic empyema. The reviewer is familiar with no other textbook that makes so thorough and valuable a presentation of the surgical diseases of the lung. The largest chapter in the book, 1,923 pages, is devoted to the treatment of pulmonary tuberculosis by induced pneumothorax. Its authors are J. Burns Amberson, Jr., and Andrew Peters—both internists and surgeons will find it profitable reading. The other surgical methods of treating pulmonary tuberculosis receive comparatively minor consideration.

The reviewer is indeed glad that Dr. Lilienthal has produced this pioneer American textbook on thoracic surgery.

EMERGENCY SURGERY. The military surgery of the World War adapted to civil life. By George de Tarnowsky, M.D., F.A.C.S., D.S.M. Colonel, M.C., O.R.C. (378 Medical Regiment.) Professor of Clinical Surgery, Loyola University Medical School, etc. Illustrated with 324 engravings. Philadelphia and New York. Lea and Feibiger, 1926. Price, \$7.50.

Dr. de Tarnowsky in his introduction gives an interesting discussion of the scope of the work and the professional position of the industrial surgeon; he seems to be anxious to justify the position of those emergency surgeons "who advertise a continuous twenty-four-hour service." For a professor in a medical school the author is a bit careless in his views on medical ethics. The introduction shows that official fee schedules, for compensa-

tion cases, have been established in fourteen states; in six states the employers' right to designate the attending physician is recognized, even though satisfactory service is being rendered by another physician; in four states employers or insurance carriers are not permitted to enforce such a change of physician unless the service being rendered is unsatisfactory. Tarnowsky concludes that "viewed in its proper light what to the practitioner appears to be unfair competition is, in reality, an economic necessity"—his admiration for "wholesale services" raises a question as to the propriety of his being a teacher of medical students. Nevertheless, he has produced a good book on emergency surgery and every practitioner will find it of distinct value. The book is essentially on military surgery and more attention is given to gunshot wounds than their importance in civil life justifies. The sections dealing with bacteriology add nothing of importance to the book. Infections of the hand are dealt with in a few pages. Fractures of the base of the skull are not mentioned, in fact, the chapter on cranial injuries deals only with gunshot wounds. There is a useful chapter on standard splints and another on the medico-legal aspects of emergency surgery.

SOME WAYS TO KILL A MEDICAL SOCIETY

1. Don't go to the meetings.
2. If you do attend a meeting, find fault with the work of the officers and members.
3. Never accept office, as it is easier to criticize than do things.
4. Get sore if you are not appointed on a committee, but if you are, do not attend committee meetings.
5. If asked by the chairman to give your opinion on some matter, tell him you have nothing to say. After the meeting, tell everyone how things should be done.
6. Hold back your dues, or don't pay at all.
7. Don't bother about getting new members. "Let George do it."—*Selected.*

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ORIGINAL ARTICLES

BIOLOGICAL DIAGNOSIS AND TREATMENT OF TUBERCULOSIS OF OUT-PATIENTS.*

PROF. ERNST LOEWENSTEIN, M. D.
VIENNA, AUSTRIA

The diagnosis of the incipient form of tuberculosis is not as easy as it looks at the first glance. Our usual clinical methods, percussion and auscultation, are not able to uncover the tuberculosis infection until the anatomical changes in the lungs have reached the size, let us say, of a cherry. You know how difficult it is for the prosecutor to find the primary focus in the lungs, which is often smaller than a pea. It is impossible for the clinician to demonstrate the focus in such early cases. The x-rays have surely made important progress. I insist upon every patient getting his own picture after the first consultation; the picture is far better than the best case history, as it tells us the development of the anatomical changes for decades in a minute, and permits us an objective judgment of the case. But we must not forget that there are limits to the capacity of x-rays, too, as regards the positive as well as the negative results. Especially in the fresh lesions, let the x-rays pass. The anatomical changes must be advanced to a certain degree, the glandules and their capsules must have a certain age, the infiltration must be rather massive and even a little calcified to give a good picture. On the other hand there is no doubt that transient hyperaemias, especially as another effect of a feebleness of the heart, are sufficient to absorb x-rays enormously and lead to a false diagnosis in cases of bronchitis, bronchiectasis and central pneumonia.

However, I believe that the x-ray diagnosis of the lungs in acute diseases is much too neglected; we would learn a good deal in judging x-ray plates if we would control every acute and chronic disease of the lungs by means of this method.

Serology is occupied in intricate experiments to find a Wassermann method for tuberculosis, but alas! all these methods have no real diagnostic value to date, particularly if compared with the

Wassermann results in syphilis. You know the several methods of complement-fixation of Wassermann, Klopstock, Bosquet and Negre, Besredka, the methods of the Ruck Institute of North Carolina. I tested them in my laboratory, and I found that Besredka's gave the relatively best results, although I have to emphasize that there is no possibility of using all these methods in practice; even the Besredka method varies extraordinarily in the same patient within a short time. We were not able to draw any conclusion from the results for practice. Advanced patients gave a negative, and healthy patients a positive result.

You know that the microscopical results are not reliable, especially in all kinds of metastatic forms of tuberculosis. The pus of the tuberculous foci in the bones, kidneys, or skin contains none or few visible forms of tuberculosis bacilli, but they are in the pus, perhaps in an invisible form, as I can easily demonstrate by my method of direct culture.

In a lot of cases this method of culture was far superior to the microscope and the animal experiment.

You are able to compare the results in these tables.

If I summarize, I must say, that the Pirquet test remains the best means of making an early diagnosis of tuberculosis infection in childhood. It is always the same reaction, whether it takes place upon, in, or under the skin. We in Vienna use only the original Pirquet test or the Dermotubin test. The latter, which consists of a specially concentrated tuberculin mixed with dead tuberculosis bacilli, is rubbed into the ether cleansed skin. The reaction is very clear, no doubt is possible as to whether the reaction is positive or not. After one or two days very few red nodules appear, first degree; or a circle or red nodules in the form of an erythema, second degree; or a circle of red nodules and vesicles, third degree.

Last year we started in Vienna with the execution of a crusade against tuberculosis, based on the Dermotubin test. All children entering school were rubbed with Dermotubin; the number of positive reactions varied between 40 and 50 per cent. Now the school physician pursues the fate of the children. The results were so satisfactory,

*Guest address. Presented before the general meeting at the annual session of the Indiana State Medical Association, West Baden, September, 1926.

that the physicians and the public agreed to repeat this test every year. I will not forget to accentuate that many of such positive reactions led to the discovery of an unknown case of manifested tuberculosis in the family. This method of observing cases from childhood up seems to me the best basis for an effective organized fight against tuberculosis.

We surely all agree that the healing of tuberculosis is a matter of years and that the sanatorium treatment is only a short stage in the long course of such a chronic disease. I do not deny that the sanatorium is an important aid, but the backbone of tuberculosis treatment must of necessity be the out-patient treatment at home. Only a small percentage of patients are able to cease work for a year to hide away in a sanatorium. The professional man with a family particularly, often refuses to take such a risk. In my country there is a fixed association among colleagues between tuberculosis and the country, but I am a foe of such a thoughtless manner of treatment. My twenty-five years' experience in the treatment of tuberculosis has taught me that simply sending patients to the country without any further care and control is nothing but a loss of valuable time. Very frequently the patients come back from the country in a worse condition than before. I therefore give my patients the alternative: if they cannot afford much of a vacation, they must remain at home altogether. If they can afford a vacation, whether it be a short or a long one, they must use it in a sanatorium while they have the opportunity. Under no circumstances must they use their time to run about the country. At this point I must also say that I am opposed to the simple transfer of patients to the sea coast or the mountain country without simultaneous, consistent, medical treatment.

It is a great mistake to expect any pronounced effects from the climate alone. You know that Egypt has the highest death rate in the world from tuberculosis, a fact so often disregarded by those who seek a cure simply from the climate of the desert. Egyptian colleagues have often warned me against sending patients to Egypt or the North African desert, and the influence of high altitudes is quite as ineffectual without proper medical attention. When we recall, again, that time is the important factor in the curing of the disease, we will agree that the patient should remain under the observation of the physician who knew him longest.

And what are the measures at the disposal of the physician? If we consider the disease according to its three usually accepted stages, the first stage demands, above all in adults, great temperance in the matter of sports and the various hardening process. These measures are, in my opinion, easily over-estimated and exaggerated. The vascular system of adults is not able to adjust

itself any more to that extent and I have often noticed that the prophets of such measures never lose their chronic catarrhs. Hardening must be exercised in youth in order to attain practice.

I will tell you a little story from my practice. Two boys used to take their daily morning bath in the river. In the winter they made a hole in the ice and went in. The old people near by looked at them in wonder and said: "They must be very healthy." But both got a very extensive exudative pleurisy, and I saw them in a very bad state. They both recovered and are now two famous etchers. Such an experience teaches us more than an artificial experiment with animals. We are too domesticated a people for such hardening cures and I believe that a certain precaution is necessary in the use of cold water.

One of the earliest symptoms of tuberculosis is a pleurisy which is found in every case of tuberculosis as adhesions between the pleura. This pleurisy may be postulated in every case whether it is to be diagnosed or not. I must also add that even x-rays are very often not able to show us these dry pleuritids. In cases with pains I have always treated the condition by applying a cingulum which one must leave on for three days. This simple measure suppresses the pains in a very short time. I have the impression that this fixation of the affected side also beneficially influenced the tuberculosis process itself. It is a kind of extra-pleural pneumothorax which may also have a good effect on other diseases of the lungs such as bronchiectasis. It is also my experience that these pleuritids are very well influenced by what I call an ocean bath in bed. It is nothing but warm 4 per cent iodine-salt water compresses which are applied for the night. I need not emphasize that lying in the salt solution the whole night is far more effective than the transient process of a bath.

Dry coughs so characteristic of pleuritids must be avoided for they increase the symptoms of inflammation by irritation. They must therefore be suppressed for which purposes I use the following pills: Rx. Urotropin 0.2, Thebain 0.005, Cocain 0.005, Sod. borate 0.01, Mentholum crystallisatum 0.01, and one drop of adrenalin with as much sugar as is necessary for pills. These pills should be sucked as candy.

In cases with expectoration I use these pills to stop coughing only at night. By day expectoration is desirable for every infected wound must be drained. Only in cases where coughing is too distressing, I allow patients to take pills after meals. I need not mention the general measures of food, light and fresh air.

As all of you, I lay weight upon good nutrition, but alimentation is made very difficult if the patient fevers. The treatment of fever is, therefore, a necessity, but I find it very often not effectually carried out. I often see that the fever

is treated only when it has reached a certain altitude. In my opinion the temperature must be kept constantly down to a nearly normal level and therefore antipyretics have to be taken in the morning. I prefer antipyretic medicaments and use the following prescription: Lactophein 4.0, quinine 1.0, hexamethylentelramine 2.0, aqua 200.0, four to five tablespoonfuls are enough to keep the temperature nearly normal. I am also not in favor of giving one large dose at the height of fever for it enfeebles the patient too much and weakens the heart.

You all know the horde of drugs which have been proposed against nocturnal perspiration, but I must confess that I have never found any of them satisfactory. The resolution of the small perifocal pneumonias is, in my opinion, the cause of these nocturnal sweats. One could try strengthening the heart with a little alcohol and irradiating with the quartz-lamp.

As regards hemorrhages, it is doubtless common knowledge that they are not so ominous as was formerly supposed. I am in the habit of giving patients in whom I suspect the possibility of a hemorrhage, a printed sheet containing all the usual first aid measures to be carried out by himself. I myself have suggested a little case which contains all the medicaments and instruments necessary for stopping hemorrhages of all kinds. It is particularly valuable because it possesses all the necessities ever ready for use. The other methods are the usual ones of autotransfusion in the form of warm packs to the abdomen and extremities. After hyperemia of the legs is attained I try ligation. I have also observed very good success with the administration of nitrates in the form of amyl nitrate inhalation or four doses of nitroglycerine daily. The injection of 25 per cent camphor oil was also favorable. The cases with increased blood pressure, however, demand particular care. I do not at all doubt that such patients are unusually susceptible to hemorrhage, as is easily demonstrated by the occurrence of hemorrhages during coitus or defecation. For this reason I treat such patients by reducing pressure with the aid of nitroglycerine, which can be administered for years without harm, caring for regular bowel movements, and giving warm foot baths twice daily. In dangerously extensive hemorrhages, artificial pneumothorax is the last resort, but one must be absolutely sure as to the side from which the hemorrhage comes. I once saw a case in which the pneumothorax was done on the wrong side, but the patient luckily recovered in spite of that.

In general I believe that all these measures may be considered self evident. The chief thing is that the patient must be observed for long periods of time by his doctor, and the keystone of such attention is systematically executed treatment. To

date this treatment has consisted in specific biologic treatment, x-rays and chemotherapy. As regards chemotherapy you know that several gold compounds are now the fashion. Crysolgan and triphal were rather useless. The former has an undeniably good effect only in cases of rather advanced lupus erythematoses. The treatment begins with a dose of 1 mg. and increases very slowly up to a dose of about 1 centigramm. The most recent compound is sanocrysin, which is now in the center of discussion. After evaluating my own experience and that of others with it, I cannot encourage its use. On the contrary, I must not fail to mention that its administration is not without danger, especially if one follows the dosage of the Danish authors. In one case occurred the eruption of an acute pemphigus after injection with resulting death. In other cases the course of the disease was unfavorably influenced by the appearance of intestinal tuberculosis. A few reports speak of good results in exudative cases, but the time of observation was too short. The other compounds recommended for chemotherapy are, as yet, in the experimental stage.

The use of x-rays is far less dangerous and in certain types of cases, such as tuberculosis of the glands and skin, it is of great value. In cases of lymphogranuloma I saw a relatively very good result, but the fatal course of the disease was only protracted by about ten years. I have also seen occasionally good results in the x-ray treatment of bone tuberculosis, but often I have missed any effect whatever. The latter result was the rule in tuberculosis of the lungs and the larynx. Succinctly stated, the result of every treatment depends upon time. The patients need a systematic treatment and control as a specific treatment.

When Robert Koch first published his methods of tuberculin treatment, the Prussian government gave an order to report on the results within six weeks, a sure proof that they were at that time entirely ignorant of the time it takes tuberculosis to heal. It is natural that the clinicians could report only very bad results. But there are other reasons to explain why the time was not ripe for the difficulties of such treatment. First of all, the pharmacodynamics of tuberculin were wholly unknown. One began with doses which are now used only at the end of a long treatment. For this reason, it is easy to understand that many patients died as a result. But I will add that there were several patients long alive treated with this method by Robert Koch himself in 1890 as Paul Ehrlich and Stinzinger. Secondly, we had no great notion at that time as to the limits within which the healing of a tuberculosis is still possible. Tuberculin treatment thus received a setback for a long time. But a renaissance of this method has been developing for twenty years, and now tuberculin treatment is acknowledged as the specific treatment, especially in those branches of

medicine in which a clear, objective judgment of the results is possible, as ophthalmology.

The reason for getting such excellent results in tuberculosis of the eyes is to be seen in the small size of the tuberculous focus.

Now you will ask in which way does the tuberculin influence a tuberculous focus? The best object for demonstrating the mechanism of the effect of tuberculin is the common lupus. If you inject a quantity of 0.5 mg. subcutaneously you will observe five hours after the injection that the tuberculous tissue begins to show all signs of an acute inflammation. The whole focus begins to swell and to redden. The borders of the sound tissue become sharply demarcated by a white stripe nearly 1 cm. broad, which consists of a transudate. All signs of inflammation still increase till the height of fever is passed. The same inflammatory, perifocal reaction takes place also in glands, bones, and lungs as well. If one examines such a tuberculous focus at the height of its reaction histologically, one finds that the leukocytes are destroying the structure of the tubercles. We pathologists all agree that this is a suppuration of the tubercle. Clinically we are able to differentiate three phases in the changes produced by tuberculin: The first consists in the demarcation of the necrotic tissue. The second in the removal of the necrotic tissue. This removal can be effected in two ways. The one way leads to the direct removal of the sequester (sputum, anal fistula). This is only possible where a connection between the focus and the surface exists. Where no removal is possible, resorption must take place, for example in the eye, or the brain, the sequester must be digested or dried up. The result of that process is calcification (lungs, glands). In any case the sequester must be disposed of in order to create the best conditions for the development of fibroid tissue. The third component of specific treatment is the capacity to promote, to favor the proliferation of fibroid tissue.

In 1909 Robert Koch visited me, while I was in Beelitz, near Berlin, to convince himself of the results. In the following discussion I summarized my opinion regarding the influence of specific treatment upon the anatomical changes in one sentence:

"The tuberculin treatment promotes the fibrous metamorphosis of ulcerous phthisis better than any other form of treatment.

Robert Koch acknowledged this conclusion as the best possible explanation.

It is rather a pity that we have so few autopsy protocols of specifically treated cases. Dr. W. Loewenstein published three cases from the Pirquet clinic. Weichselbaum's successor made the autopsies and this experienced pathologist stated without knowing the treatment, "I never saw cases of children's tuberculosis with such a pronounced tendency of healing." These three cases were ad-

vanced cases with localizations in several organs; all three cases offered solitary tubercles of the brain as large as nuts or big cherries, enveloped in a thick capsule of fibroid tissue.

Such statistics are absolutely necessary in order to clear up the whole question, but the opportunity for autopsies is too rarely given, because thoroughly well treated cases die so seldom. But I must repeat that only cases belong here, which were treated at least one year and got the final dose of at least 10 mg.

Before discussing the technic of specific treatment, we must not forget to mark the cases not fit for it. Primarily no success is to be expected in cases in which life is limited to one year, but even in such cases we should risk it, because a systematic treatment is the best consolation. On the other hand we will perhaps be surprised in some cases by the results. I refuse under any circumstances to try the treatment in cases with periodical headaches. The focal reaction, so necessary in the lungs, the skin, etc., is dangerous in the meninges, because such cases are very suspicious for chronic tuberculous meningitis. But the above mentioned cases show that even great solitary tubercles may be encapsulated.

Heart failures, pregnancy and nephritis demand a certain precaution in the dosage, but I never saw a bad turn which I could attribute to the treatment.

In diabetes, the insulin and the tuberculin treatments may be combined. Hemorrhages are not a contraindication, except in cases with increased blood pressure. I believe such cases should be excluded, especially in ambulatory treatment.

The dosage applied depends on several factors. First of all, ambulatory treatment with tuberculin demands a greater precaution than in a sanatorium. The natural intelligence of the outpatient must replace the medical observation in the sanatoriums.

A greater precaution is necessary in an exudative case than in a fibrous case. I prefer to begin with an emulsion of bacilli on the exudative forms, and after attaining a higher dosage I begin again with old tuberculin. The reason for this is that the focal reaction in such cases should be limited. The third factor upon which the dosages depend is the organ in which the tuberculosis is localized. As the metastatic forms of tuberculosis, such as the eyes, the bones, the skin, etc., you must recall the hints of my introduction. I differentiate between resorption and discharge of the pus. Now if you strive to have the pus discharged (lungs, kidneys, fistula ani), you must risk a strong focal reaction. If, however, resorption is the aim of the treatment, a certain precaution is necessary, because the capacity for resorption is limited in many cases (eye).

The interval which must be respected during the injections are to be estimated from the three

forms of reaction which are the local reaction at the point of injection, the focal reaction, and the general reaction. In any case all signs of inflammation must have disappeared before the treatment may be continued. According to my experience the injections may be repeated once a week.

It is always a question as to how long the treatment should be continued. I can only say that the injections must be given as long as the progress of the disease is not stopped. That means at least two to four years. In respect to the length of treatment, it makes no difference what the forms of tuberculosis is. I must always repeat that the healing of any tuberculosis takes years, and I believe that the neglect of this fact is at the bottom of so many unsatisfactory results. All methods of healing tuberculosis take time, whether they are carried out at high altitudes or at sea level. The demarcation and exfoliation of the focus takes the longest time, then the proliferation of fibrous tissue sets in.

As regards the technic of injections, I am an enemy of using millioneths of mgs. I always begin with a tenth or a hundredth of a mg., and I increase the doses of the dead tubercle bacilli.

If I repeat the Pirquet test in the same region of the skin many times, the sensitiveness to the tuberculin increases more and more until this region reacts to hundredths dose of tuberculin necessary for any other region. I can further remind you of the fact that cases of skin tuberculosis are unusually sensitive to the Pirquet test. It is entirely possible that these observations serve to explain the above mentioned facts, that an organ system already infected offers a better basis for the development of new foci than any other tissue. This sensitivity, however, must not be confused with immunity, for an organ system can acquire a sensitivity to a disease without respect to the organism but immunity, it seems to me, can be acquired only with the help of other organ systems.

There are two, perhaps three, organ systems which have a very high resistance to tuberculosis. The first are the muscles, then also subcutaneous tissue and the thyroid gland. It is very seldom that we see any lesions in these organs. Even after the closest macroscopic and microscopic examination of the muscles and subcutis of cadavers of miliary cases, I was unable to find lesions, although all other organ-systems were heavily affected. When we inject an antigen intramuscularly or subcutaneously we are infecting highly resistant system. Our specific treatment of tuberculosis is then simply the process of infecting these resistant systems to force them to take part in the general infection and in the production of their own powerful antibodies. *I have always injected great quantities of dead tubercle bacilli intramuscularly or subcutaneously and have been able to produce all the microscopic and*

clinical symptoms of tuberculosis, which developed into a real cold abscess, which then penetrated and healed in eight to ten weeks with the blue scar so typical of such lesions.

For what purpose did I risk such disagreeable accidents? I was lead by the wish to mobilize these immune organs as the muscle in aid of the sensitive ones, which learn never, or very slowly, to get rid of the bacilli.

The more often this process of healing of a real tuberculous focus is repeated, the better the organism learns to defend itself. The resistant organs must be taught to kill the bacilli in order to help the defenceless ones.

But we must expect to come to the therapeutic problem. Are there any proofs of this theory in the practice? This question must be answered in a scientific way, and one of the most exact working disciplines is ophthalmology. The tuberculous foci may be here controlled very easily and the effect of specific treatment is to be read directly from the eyes.

With a few ophthalmologists I pleaded for the specific treatment for nearly twenty years, but now I can say that specific treatment in tuberculosis of the eyes is acknowledged in the whole world as a sovereign remedy. In earlier times the percentage of healing was 10 to 15 per cent.; now it is 80 to 85 per cent.

The second object to test my opinion was the tuberculosis of the urogenitary system. You all know the helplessness of our therapy in cases if both kidneys and both testes and both vesiculae seminalis were affected. Such cases are fit to decide whether a treatment is good or not.

Professor Blum, the famous urologist in Vienna, sent these cases to me, to be treated. Since 1905, a year before Wright, I proposed an ideal specific treatment, led by the opinion that we must use the same, identical virus which causes the illness as antigen, therefore we have to make autovaccines in all chronic diseases, especially in tuberculosis.

In these cases I cultivated the tuberculosis bacillus directly with my method out of the urine, made an autovaccine and injected the dead bacilli in large quantities into the muscles. One of these cases got a hydronephrosis, which made the extirpation unavoidable. The histological examination showed the surprising result that only scars of tuberculosis foci were to be found and a tuberculous stricture of the ureter. All the other cases showed also a surprising melioration, which surpassed all expectations. In all these cases the cold abscesses of the size of a cherry persisted two to three months.

These experiments in men must be continued in order to decide the question so important for the therapy of insurable diseases.

The same virus which is the cause of the disease is the cause of the healing. In other words the co-operation of all organs, the resistant as well as

the affected, is the solution to the riddle of immunity.

Now we must consider the symptomatic signs of healing in the lungs. I may pass up the bacteriological criterion in emphasizing the necessity for frequent examination of the sputum by means of culture. The most interesting point for us is the objective analysis by means of the clinical methods. For this purpose it is well to recall the anatomical changes which accompany the healing process. Calcification which plays such a great role in the mind of the laity is actually subordinate in the lungs, as our famous College Wells in Chicago showed us. The real anatomical basis of the process is fibrous cicatrization. This simple fact already indicates the normal again. Answer: We may expect to our clinical examination, the results of percussion will remain the same to a great extent because the lungs never will become normal again.

Therefore, carefully executed percussion will often show us the anatomical changes far better than auscultation. I used to have my pupils begin the examination with auscultation; they find normal breathing in the lungs; but if they began percussion, they were surprised to find extensive dullness where they had heard normal breathing. They could not believe their fingers and ears; they looked for other explanations. In the same way you find normal breathing over healed pleurosies, but the percussion discloses anatomical changes. Surely your own experience will agree with mine.

Auscultation offers much more difficulty; it is not necessary to lose time in speaking about the disappearance of rales, but you know that in certain cases progress is stopped in spite of rales; especially dry rales may always be present, often caused by pleural adhesions, far more seldom by bronchiectasis. Far more stress must be laid upon the observation of the character of the breathing. In the healing process the parenchyma of the lungs is replaced by fibrous tissue; if the quantity of the latter is very small, you will hear normal breathing. If this small quantity covers the apex in the form of a pleural cap, the sound of breathing is weakened.

This decreased breathing is a sign of healed tuberculosis, but, alas, it is also a sign of incipient tuberculosis, if this part of the lungs does not breathe well. But if the fibrous tissues replace a greater part of the lungs, the breathing sound becomes more and more sharp, or bronchial in character, especially in the prolonged expirium, which I always take as a symptom suspicious of tuberculous infection, even in the right apex. Only long observation is able to decide, *whether a fresh or a healed process* is before us.

And now we must consider what help we may expect from x-rays. What signs do x-rays give us for the differentiation between healed and progressing stages? To begin with, it must be

noted that very many post mortem cases show healed and progressing stages side by side.

You must therefore not look for too much in the fluoroscope, but there are certain very reliable symptoms. I take the opportunity of repeating the above mentioned necessity for taking photographs at intervals of one or two years in every case. Our science and the patient as well will profit by the combination of this comparative method and the clinical observations. The first of such symptoms is the disappearance of shadows. There is no doubt that they may disappear in childhood, in the lungs as well as in the glands. They also disappear in adults, but only when the lesion was a fresh one. If the process has been chronic in adults the shadows do not disappear. On the contrary, they become more sharply defined, which gives us a second x-ray criterion for judging the stage of the process. A third symptom which I have never seen mentioned in the literature, is a certain lamellation to be seen only in the plate, and due probably to a hypertrophy of the interstitial tissue. These stripes correspond to several layers of fibrous tissue. The fourth symptom is that of displacement of organs, as for example, of the mediastinum, the trachea, the diaphragm, etc. A certain reduction of the intercostal spaces of the same side may also be mentioned here.

The surgical measures in tuberculosis must be limited to the advanced cases. You all know the indications for the application of a pneumothorax and I will therefore lay particular stress upon the contraindications. In the first place I never have observed satisfactory results with this method in patients over forty years of age, but on the contrary, very often a bad turn in the course of the disease. The heart at this age cannot stand the changed conditions of pressure so well, and the rigidity of the vessels make it far more difficult for the organism to adapt itself to the new conditions. Nearly all specialists agree with me on this point. Secondly, I need not emphasize too much that an active progressive infection of the other lung is a certain contraindication to the measure. The effects of pneumothorax treatment are very good ones if the indications are carefully observed and the air is kept in long enough. It often takes five years, but there are cases in which pneumothorax cannot be applied, because the pleura is adherent or obliterated.

In such cases the exhaeresis of the phrenic nerve is the next step which may be substituted. The paralyzed half of the diaphragm rises and compresses the lung of that side. In a lot of cases the exhaeresis, even if as single measure carried out, proved itself very efficacious. Up to date I have never observed any bad complications with this method. But in single cases, in which the exaيره was carried out only as a preparing operation, the thoracoplasty proved itself unnecessary, the pressure of the paralyzed

diaphragm was sufficient to promote the fibroid induration. Therefore it is useful to begin with exairese in such cases, in which surgical treatment must set in. The thoracoplastic must remain reserved for cases with cavities, in which all other measures have been fruitless.

I finish my speech with the demonstration of a series of plates, which illustrate the enormous healing power of nature, supported in the majority by the use of tuberculin.

I must beg you to take these considerations only as such for an exhaustive treatment of any of these points would be a lecture in itself. In such a chronic disease as tuberculosis, the time spent in a sanatorium can be but a short lap in the long course of the disease. Ambulatory treatment is therefore of the very greatest importance in these cases and the backbone of such out-patient care is, in my opinion, the specific biological treatment.

SHALL WE WAIT FOR SHOCK TO PASS BEFORE OPERATING?*

MILES F. PORTER, M. D.

FORT WAYNE

It is quite generally held by surgeons, I think, that to operate during shock is, generally speaking, bad policy. In commencing this paper there came to my mind the saying, "Fools rush boldly in where angels fear to tread." and I was somewhat hesitant until I called to mind the admonition of Cromwell to his Scotch parliament when almost to a man they were asserting what they "knew to be true"—he said to them, "In the name of God, gentlemen, consider it possible that you may be mistaken." and in addition thereto my own experience, and I was constrained to go on and tell you what my attitude in this matter is and the reasons therefor.

Either trauma, hemorrhage, pain, anger, fright, toxemia or exhaustion acting alone or in combination may produce death, and in any case the death so caused is the result of nerve cell degeneration, and is recorded as a death from shock.

In some cases a predominant causative agent leads one to qualify the diagnosis—i. e., shock from hemorrhage or shock from fright.

In the great majority of cases of shock, however, two or more of the causative agents are active, and this is especially true of those cases resulting from railroad injuries.

So that while it is wise to differentiate in so far as is feasible in cases of shock one should not forget that in the majority of cases two or more etiologic elements are playing an important part, and that the diagnosis is of secondary importance to the salvation of the patient. In treating patients with shock one should continually bear in mind the fact that different people react differently to insults of the same nature and degree.

An injury that produces exquisite anguish in Smith may produce little more reaction in Jones than does water on a duck's back. Whether intentionally or not I do not know, but certain it is that one of the poets stated very tersely and beautifully an important physiologic fact when he said: "The mark of rank in nature is capacity for pain."

It goes without saying that in many cases of shock the psychic element predominates and it is probable that most, if not all cases of delayed shock, are psychic in character, produced by recalling the incidents of the accident, and the remaining ones are really cases of recurrent hemorrhage. Other things being equal the longer the condition of shock lasts the less likelihood there is of recovery.

The explanation of this fact in part at least is that shock and hemorrhage may produce a fatal acidosis. It is of practical importance to remember, too, that shock may produce hyperthyroidism, and on the other hand that persons suffering with hyperthyroidism are peculiarly susceptible to shock. It is conceded by all, I think, that it is impossible to differentiate between concealed hemorrhage and shock. It is also well known that many deaths from so-called shock have been found to be due to hemorrhage into the tissues in patients with extensive crushing accidents.

Operation stops hemorrhage, relieves pain and suspense, minimizes the danger from sepsis, delayed shock and toxemia. Anesthesia relieves psychic shock. It will be said that even a slight additional trauma will add to the shock sufficiently to cause death. Candidly I have never seen any evidence that proves this claim, and on the other hand have had abundant experience to prove the converse. Personally I have had scores of patients who came to operation in shock go off the operating table in much better condition than when they were put on the table and have never seen a death which could be rightfully charged to "operation during shock."

On the other hand just what is to be gained by waiting for the shock to pass?

Certainly delay is not a cure for hemorrhage or pain or psychic disturbance and just as certainly it does invite sepsis, delayed shock and toxemia. Certainly logic leads one inevitably to conclude that to delay operation because of shock is not sound surgery save in exceptional cases, and the writer's personal experience supports this conclusion. That the policy of delay is still so generally adopted is due in large measure perhaps to two arguments, both of which are specious but unsound, viz.: 1. To operate in shock will bring surgery into disrepute by causing more deaths to be attributed to operations. 2. Owing to the present status of professional opinion the surgeon who operates during shock lays himself liable to blame.

*Read at the meeting of the Wabash Railway Surgical Society, Detroit, August 23, 1926.

The answer to the first argument is that to do the right thing cannot bring disrepute to any profession or person save perhaps temporarily, and in the end always adds to good repute.

To the second argument the answer is obvious—no one but a coward will refrain from doing what he feels to be the right thing for fear of censure.

The surgeon who operates during shock will quite often find it necessary to content himself with work which is not ideal and which may be incomplete. He is operating to save life and can well afford to leave the finishing of the work for a more opportune time.

An exhaustive argument of this subject would require a volume and I will content myself by closing this paper by answering the question which has been taken as the title of it as follows: No; operation properly planned and wisely executed is the best form of treatment in many if not most cases of severe shock.

DYSPEPSIA IN THE BREAST-FED INFANT.*

T. H. HARRELL, M. D., AND ELMER BOYD, M. D.
EVANSVILLE

Most authorities writing on the subject of dyspepsia in the breast-fed, state that the sole cause of dyspepsia is over-feeding, which may result from too large a quantity at each feeding, too high fat content of mother's milk, or abnormally low tolerance of the infant to any kind of food.

This is a clear-cut explanation of the causes that lead to the condition known as dyspepsia in the breast-fed. However, we have often been impressed with the fact that this explanation fails to take in the infant which it is impossible to place under the classification of over-fed. We have seen dyspepsia in infants that are not over-fed. It is not exceedingly rare to find infants with dyspepsia, who are not receiving a sufficient amount of breast milk to obtain the average gain in weight. This history holds good from the early days or the early weeks after birth; the infant has failed to gain or has gained but little in weight, yet from the first few days after birth, or often with the first appearance of the breast milk, symptoms of dyspepsia with many watery stools and gas in the intestinal canal are to be found. On the other hand, one must admit that over-feeding is the cause of dyspepsia in the vast majority of cases.

Toverud¹ reports an interesting series of cases in which under-feeding or inanition appear as the cause of dyspepsia.

One must have an idea of what takes place in breast milk in the intestinal canal of a breast-fed infant in order to visualize and classify dyspepsia. Mother's milk is a food containing a high percent of lactose, a reasonably low per cent of protein

and calcium salts, with a fairly high per cent of fat. A food composed of these elements as they exist in mother's milk, is conducive to fermentation in the lower part of the intestinal canal.

Lactose is a sugar that is split up rather slowly, and in all probability in the breast-fed infant some is not utilized before it reaches the colon. This accounts for the lack of constipation in the vast majority of breast-fed infants, and also for the more or less watery stools, especially in the early weeks of life. Lactose encourages and enhances the growth of the aciduric bacteria found in the breast-fed infant's intestinal canal.

Formerly it was thought that when infants fail to digest mother's milk properly, the sole fault was to be found in the infant, rather than in the breast milk, and when such an infant was given the milk of another mother that it would digest it. However, with our present-day knowledge we must come to the conclusion that certain mothers do secrete milk that will not only disagree with their own infant, but on rare occasions will disagree with another infant.

The sensitization of some infants to foreign protein from the mother's food will account for at least some cases of dyspepsia. It is a well known fact that not only do these dyspeptic infants have a low tolerance for sugar and fats, but many of them have a low tolerance for any food excepting one high in protein.

Not only does the normal infant born at term suffer from dyspepsia, but the premature and congenitally weak; and the symptoms and the end results of dyspepsia in the premature and congenitally weak are much graver than in the infant born at term.

As mentioned by Sedwick and many others, the primary cause of dyspepsia is overfeeding. Ordinarily this means feeding at too short an interval, and the custom of using a four-hour interval for the average newly born is a large measure in preventing dyspepsia; however, over-feeding is not the sole cause of dyspepsia. We have weighed such infants before and after nursing, over a period of forty-eight hours, in order to prove that at least some of these infants that suffer from dyspepsia are not overfed on breast milk, but are underfed.

Much laboratory work has been done on the breast milk secreted by mothers whose infants are suffering from dyspepsia. Invariably such milks have not differed in chemical analysis from the milks secreted by mothers whose infants are growing normally and are happy; therefore some cause other than the disturbance of the relation of one element to the other in mother's milk must be found to account for this condition.

Toverud¹ quoting Chossat, Aron and Magendie, states, "it is known that rapid destruction of body tissues occurs in infants having an insufficient caloric intake. Young animals subjected to complete starvation die in a much shorter time than

*Presented before the Section on Medicine of the Indiana State Medical Association, at the West Baden session, September, 1926.

older animals, and before as great a loss of body weight has occurred. Starving young animals often show symptoms similar to those of the infants described. It is our belief that the dyspeptic symptoms occurring in infants of the type described, can be explained on the basis of "hunger."

"The infant is restless, irritable, and always crying. There seems to be abdominal pain and discomfort, usually regarded as 'colic' or 'cramps.' According to the work of Carlson these are symptoms of hunger. He has shown that hunger contractions occur in new-born infants even before being fed, and that when such contractions become vigorous the sleeping infant wakes, becomes restless and cries. The hunger periods are more frequent in infants than adults. He further demonstrated a marked general increase in the excitability of the spinal cord occurring simultaneously with the strong hunger contractions of the stomach."

Carlson², has further shown on experimental animals that gastric hunger contractions appear when the blood sugars fall below 0.07 and 0.08 mg. per hundred cubic cent. of blood.

Toverud further states that he made blood sugar determinations in a number of infants in his series following fasts, and found the blood sugar levelled to 0.05 and 0.06 mg., and in one case as low as 0.03 mg. per hundred cubic cent.

"Hypoglycemia occurring in those starved infants, is doubtless a factor in bringing about hunger contractions and general increased irritability."

In experimental animals, as well as in infants, diarrhea is a frequent result of starvation. It has been shown by Bush and others that the whole intestinal tract undergoes rhythmic contractions during the period of gastric hunger contractions. Such contractions lead to diarrhea. Furthermore, there is a diminished secretion in digestive juices (especially gastric acid) during starvation (Roseman). The antiseptic effect of the digestive juice is thus diminished and the condition becomes favorable for bacterial activity."

Symptoms: Loose bowel movements, green, with yellow or white curds are usually found. There may be vomiting. The number of movements each twenty-four hours may be from three to twelve or fifteen. The bowel movements are accompanied by gas, and are usually of the explosive type. The skin of the buttocks is red and irritated, and often excoriated. The stool is highly acid to litmus paper. Many of these infants have a bowel movement almost immediately after they are placed at the breast. The intestinal acid contents cause an increased peristalsis accompanied by colicky pains.

Loss of weight takes place sooner or later, and is accompanied by dehydration. In some cases caused by over-feeding, there was a time in the early weeks, in which the infant not only gained

in weight, but in all probability gained more rapidly than does the normal infant; however, large gain in weight is lacking in the history of the under-fed infant. The loss of weight and the dehydration may become so great that a state of athrepsia or actual death may take place.

Treatment: From the above symptoms and description of what takes place in the intestinal canal of a dyspeptic infant, the treatment indicated is one that will change the fermenting acid stool into a putrefying neutral one, or an alkaline stool. A food high in protein and calcium content will meet all these requirements.

It is the practice of some pediatricists to place such infants on a skimmed cow's milk formula, without the addition of a carbohydrate. There is no doubt that such a formula, fed in one to two-ounce quantities before each breast nursing, will in some cases correct the condition. In general practice we believe that it is far safer to feed a calcium caseinate formula or protein milk. Calcium caseinate in a four to eight per cent solution in water, one or two ounces before each breast feeding, will in the mild cases correct the condition within a reasonable length of time. A better formula, however, is milk and water in equal quantities to which calcium caseinate has been added in amounts sufficient to increase the protein content two or three per cent. No carbohydrate is added until the bowel movements become pasty.

Protein milk is much safer for the vast majority of dyspeptic cases than is any other feeding. Fortunately powdered protein milk may be obtained which answers all of the purposes of the old Eiweiss formula. Powdered protein milk is uniform in its acidity and obviates the disturbing influence of attempting to make such a formula in the home. The acidity alone aids very materially in overcoming the fermentation. It has been shown in recent years that some infants, whether sick or well, digest milk which has an acid reaction better than a sweet milk formula.

Protein milk or calcium caseinate should be fed in quantities sufficient to change the fermentation to putrefaction, and it is often advisable to withhold all breast feeding for one or two days. Preferably a dextrinmaltose carbohydrate should be added after the bowel movements become thick and pasty.

The mother should be instructed to empty the breast by expression during the time the infant is not placed at the breast. It is also advisable to have the breast expressed after each breast feeding throughout the period of the use of protein milk. This precaution is taken in order that the mother may have a maximum amount of breast milk, once the point is reached, when total breast feeding may be safely done.

If the high protein feeding is kept up for a sufficient length of time, almost all dyspeptic infants may be fed entirely on the mother's milk. It is very interesting to note how rapidly most of

these infants will gain in weight as soon as the correction of the dyspepsia takes place. It is not unusual to find such an infant gain from eight to sixteen ounces in one week. It has been our experience that most of these infants, especially infants born at term, not only soon reach their normal weight, but are such vigorous feeders that over-weight may occur.

We would like to add that when in doubt regarding a case of dyspepsia it is wise, if the infant is suffering from a number of loose bowel actions, to resort to protein milk or calcium caseinate feeding. Such feeding can do no harm, and will usually result in correcting fermentation, so-called colicky pains, dehydration and diarrhea.

When these infants are seen late, and they have become much dehydrated, it is safer to use Ringer's solution, normal saline, or citrated blood intraperitoneally than to risk relieving the dehydration by giving fluids orally.

Drugs: Drugs play almost no part in the treatment of dyspepsia of the breast-fed infant; certainly the custom to prescribe for such infants laxatives and purgatives, can result in but one thing—additional loss of weight, more dehydration, and in some cases hastens dissolution.

In the first two or three days, that is, before the high protein feeding can change the intestinal flora from a carbohydrate splitting to a modified proteolytic one, in all probability a few doses of paregoric may be wisely administered.

CONCLUSIONS

1. That a reasonably large number of breast-fed infants born at term, premature, or congenitally weak, do suffer from a condition known as dyspepsia.
2. That the relations of the various elements found in mother's milk, that is, the high sugar, high fat, and low protein and calcium content, are conducive to undue fermentation in the intestinal canal of the dyspeptic infant.
3. That over-feeding or too frequent feeding of breast milk is the cause of dyspepsia in the vast majority of cases, but some infants who are underfed on breast milk also suffer from dyspepsia.
4. That when a diet containing high protein, high calcium, low fat and low sugar, is fed dyspepsia in the breast-fed infant can be usually controlled and the infant permitted to continue taking the breast. Rarely is it necessary to wean when properly managed.
5. That when in doubt regarding the classification of an infant suffering from too many green watery stools and crying, with indications of intestinal distress, it is wise to offer the infant a high protein feeding immediately before the breast in order that such fermentation and loose bowel actions, though not severe, be corrected before the infant begins to lose weight.

1. *American Jnl. Dis. of Child.*, 1925, XXX: No. 5,642.

2. *American Jnl. Physiol.*; 69:117:1924.

TULARAEMIA—WITH REPORT OF TWO CASES.*

W. D. ASBURY, M. D.

TERRE HAUTE

Tularaemia is an acute infectious disease caused by bacterium tubarensis, and transmitted to man by the bite of an infected, blood-sucking fly or tick or by direct transmission from infected rabbits by way of the hands or the conjunctiva.

Tularaemia in man is most generally transmitted from rabbits, but may be transmitted through the bite of ticks and flies that have lived on the blood of infected rabbits. It may be transmitted by the bite of an animal, such as the coyote or the gopher that has previously been infected, probably through the bites of ticks and flies. It is also known that ground squirrels are infected.

The usual way that this disease is conveyed to man is by direct contact through dressing rabbits, either by a hunter, housewife, cook, or anyone handling rabbits that are infected. Wood ticks also transmit the infection from rabbits to man and may be considered as a constant menace as a permanent reservoir of infection, because they transmit this infection through their eggs to the next generation. Certain species of flies that are blood-sucking and are commonly found on horses, also bite infected rabbits and thus transmit the infection to man through their bite.

This disease is found practically all over the United States, and is also found in Japan under the name of "O'Hara's disease." The disease known as "O'Hara disease," named after Dr. O'Hara, of Japan, has been proved by Francis to be tularaemia. The disease is found to exist at almost any season of the year, not depending upon the season at all, but rather upon the great opportunity during the hunting season of people becoming infected. Usually, when carried by ticks and flies, the disease will be transmitted more often, of course, in warmer weather than in the wintertime. There seems to be no immunity conferred by age, sex, or color. Francis has reported cases in persons from two to seventy-three years of age, and in both the white and negro races.

The etiology of tularaemia is the bacterium tubarensis. The organism is non-motile, non-spore-bearing, gram-positive. It grows on coagulated egg yolk and glucose cystine agar, but not on plain agar and plain bouillon. It is a small pleomorphic organism of bacillary and coccoidal forms. It stains best in aniline gentian violet.

In reporting 144 cases, Francis reports three clinical types.

1. Ulceroglandular type, in which the primary lesion is a papule which later becomes an ulcer of the skin, with enlargement of the regional

* Presented before the Parke-Vermilion Medical Society, August 17, 1926.

lymph glands. The two cases coming under my observation have been of this type.

2. Oculoglandular type, in which the primary lesion is situated in the conjunctiva with enlargement of regional lymph glands.

3. Typhoid type, which shows no primary lesion and has no glandular enlargements. There is a so-called fulminant type which runs a rapid course, with death in a few days.

The symptomatology is very typical. The incubation time will vary from one to eight or nine days. The average time is about three days. The disease is usually ushered in by headache, vomiting, aching, sweating, chills, fever, and prostration. The onset is usually sudden. Soon there is noted tenderness and pain over the lymph glands which drain the site of the infection. The other glands of the body are not infected, only those which serve as a reservoir to the area infected. Within twenty-four hours, there is, in some cases, evidence of the local infection in the way of a papule, which becomes painful and swollen and usually becomes necrotic, breaking down as an ulcer, giving a punched-out appearance. If the infection is on the hand, there will be red streaks extending up the arm. In perhaps half the cases the regional lymph glands break down. There is quite a great deal of weakness and prostration with a septic, intermittent type of fever which goes up to 102 or 103 degrees. This stage usually lasts from two to three weeks. There is fever in every case of tularaemia. The initial fever will last two or three days, followed by a secondary rise of temperature, usually not so high as the initial fever, after which there is a gradual decline back to normal. The fever will usually persist for two or three weeks.

In the oculoglandular cases, there is an irritation of the eye, swelling of the lids and surrounding tissues, edema of the conjunctiva with much watering of the eyes and usually a papule on the lower conjunctiva with swelling, tenderness and pain of some of the surrounding lymph glands. The constitutional symptoms are much the same as in other cases. Later, there are usually discrete ulcers on the upper and lower conjunctiva.

In the typhoid type there is fever, without the other attendant symptoms. This simulates typhoid fever, but can easily be diagnosed, after the first week or ten days, by a negative Widal and a positive agglutination of bacterium tularensis. These cases have a sudden onset and last about as long as the other types of cases. Convalescence is always slow in all the types, taking from one to three months to completely recover, some cases taking even longer. So far as studied, these cases show no sequelae.

Diagnosis is usually made by first, knowing the clinical facts, with a history of having handled wild rabbits or being bitten by ticks and flies, the regional glandular enlargement, fever of two

or three weeks' duration, and the primary lesion, if present, on the hands or on the part affected, and in the oculoglandular type on the conjunctiva. The agglutination of bacterium tularensis by the serum of the patient is the final proof.

The agglutination test will not show in the first week of illness, but will after that time, in dilutions ranging as high as 1:10 and as low as 1:2, 360. Francis states that, in his experiences, no case of tularaemia ever directly loses its power to agglutinate the bacterium tularensis. One attack does not necessarily confer complete immunity, but perhaps does render a partial immunity. There is no specific treatment. Rest in bed is very important, and it may become necessary to incise the suppurated glands.

REPORT OF CASES

Case No. 1. A boy, age ten, was referred to me for treatment and diagnosis. On going into the history, I found that he had been hunting with his father and had carried the rabbits to the house and had assisted in dressing them. Within about two or three days he developed a fever, bodily aching, with general malaise, loss of appetite, with some tenderness in the right axilla over the axillary glands. The temperature was 103 degrees, with slight remissions for three days. On the fourth day the temperature was 101 degrees, and remained thus for three days, then there was a gradual return to normal in about three weeks. There appeared some small discrete papules over his right hand with some redness extending up the arm. This continued for a few days with some drop of temperature, later showing a secondary rise. Fever also intermittent in type.

On account of the peculiar nature of the case, it impressed me as being rather unusual. Within about ten days there was a palpable epitrochlear mass, as large as a small orange, which suppurated and had to be incised. It drained very freely. The pus had a peculiar appearance, somewhat tuberculous in type. After this the axillary glands suppurated, forming an abscess the size of a plum, and had to be incised on the right side. There was a leucocyte count of 18,000.

In about two or three weeks after this the axillary glands on the left side became infected and had to be incised. This, no doubt, was due to a primary infection on the left hand which escaped notice. The recovery, in this case, was slow, probably covering a period of two or three months. I became convinced that this was a case of tularaemia, and later drew some blood from the vein at the elbow and sent it to the National Pathological Laboratory to Dr. Francis for confirmation of my diagnosis. It was found to be positive, the serum agglutinating bacterium tularensis completely in dilutions of 1:10, 1:20, 1:40, 1:80, and partially in dilutions of 1:160.

Case No. 2. Mrs. W. E. L., a housewife; dressed

a rabbit on November 28, 1925. She had been sewing and had pricked the end of her second finger of the right hand with a needle. On December 1, 1925, she felt chilly, aching of muscles, general malaise, loss of appetite, and soon afterward noticed that the second finger of the right hand became inflamed, tender, and swollen, which she thought was due to the needle prick. On the fifth day the epitrochlear gland became swollen, tender, painful, and continued to inflame and swell until it became as large as a small orange. After breaking down, this abscess was incised by a local physician and was thought to be a septic infection. The fever was not recorded accurately, but she thinks that she had a rise of fever about three days after handling the rabbits. This continued for about three or four days, followed by a remission of a few days. This remission was again followed by a secondary rise of fever, but not so high, then a gradual return to normal temperature over a period of about three weeks. The finger, at the point of the infection and up to the second joint, became greatly swollen, livid, painful, and, as the swelling subsided, there was an exfoliation of the skin. There were no papules on the hands. Though the epitrochlear gland abscess was incised freely, drained well, and healed fairly rapidly, she was much prostrated. There was no axillary involvement.

When I saw her, after a few months, she still felt weak and lacked her usual energy. Suspecting this to be a case of tularaemia, some blood was drawn from the arm, serum drawn off, and sent to the Hygienic Laboratory at Washington, D. C., to Dr. Edward Francis, and it was found to agglutinate the bacterium *tularensis* completely in dilutions of 1:10, 1:20, 1:40, 1:80, and partially in dilutions of 1:160.

*Ref. "Tularaemia"—Francis

SPECIAL ARTICLES

THE CONTROL OF SCARLET FEVER.*

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The preventive immunization against scarlet fever with scarlet fever toxin must be carried to the point of an entirely negative skin test, if it is to furnish effective protection against the disease. With properly graduated doses, given at intervals of from five to seven days, it is possible to immunize all susceptible persons to the point of a negative skin reaction without undesirable results.

The amount of toxin required to immunize different persons varies greatly. Up to a certain point the percentage of persons completely im-

munized bears a direct relation to the amount of toxin administered. We have been gradually increasing the immunizing dosage as we learned that it is safe and necessary. Some health departments, particularly the New York City health department, have employed scarlet fever toxin in preventive immunization on a large scale, but have administered it in doses too small to produce a satisfactory immunity in the majority of susceptible persons. They have given a first injection of 250 skin test doses; a second of 500; then 1,000 and 2,000; making a total dosage of 3,750 skin test doses, an amount which, in our experience, produced a negative skin in less than fifty per cent of susceptible individuals. Toxin put up in this inadequate dosage has been widely distributed by some commercial firms.

At present we are using a total of forty-seven thousand skin test doses of toxin, and administering still more, if necessary. The largest amount of toxin we have yet given any one person is one hundred and sixty thousand skin test doses. The largest single dose we have yet employed is thirty-five thousand skin test doses of a phenolized preparation.

The size of the first immunizing dose is important. It should be small enough to avoid severe reactions, yet large enough to stimulate the production of antitoxin, so that a larger amount of toxin may be safely given for the second dose.

No dose should be out of proportion to the one that preceded it. A first dose of 500, a second of 2,000, and considerably larger third doses have been given in a large series without any undesirable reactions.

We have not observed bad effects from preventive immunization. No necrosis, sloughs or secondary infections have occurred; nor have we observed any injurious effect on the heart, kidneys or other organs. However, it is reasonable to suppose that too large doses might prove harmful.

The reactions that occur are either local or general. There is nearly always some local reaction at the site of injection. It consists of swelling and reddening, which appear within a few hours, and begin to subside in forty-eight hours. The intensity of this local reaction varies with the susceptibility of the person. There may be some desquamation over the area of skin involved.

General reactions, when they occur, usually follow the first dose. They may consist of one or more symptoms, including general malaise, nausea of a few hours duration, and light, transient scarlatinal rashes. These reactions begin in a few hours after the injection and subside in forty-eight hours. They occur only in highly susceptible persons who, if they have a general reaction after the first dose, do not as a rule have general reactions after subsequent doses. Lowering the initial dose does not completely eliminate

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the possibility of these symptoms. None of the reactions are so severe as those that may occur during the course of immunization to typhoid or diphtheria. But if improperly graduated doses of toxin are employed, severe reactions may follow any dose that is disproportionately large. This may also happen if the toxin used in the first doses is deteriorated.

The active immunity produced by injections of graduated doses of sterile scarlet fever toxin requires more time to develop than the passive immunity conferred by prophylactic doses of the antitoxin, but it is more permanent. In order to determine how long it takes the active immunity to develop, retests were made at intervals of three days to one year after the administration of the toxin. The results of these tests indicated that the active immunity is developed within one to two weeks. That incomplete immunization does not usually progress to complete immunity without further administration of toxin was shown by the results in a series of experiments, in which persons were only partially immunized, and then retested at intervals of one month, two months, six months and one year. In none did the partial immunity progress to complete immunity. The effectiveness of active immunization in the prevention of scarlet fever meets its most rigid test in the contagious disease hospitals, where this method of controlling the disease is used to protect the interne and nursing staffs. In the past three years, we have had an opportunity to observe the results of active immunization with the toxin in the nurses of two contagious disease hospitals. These nurses are undergraduates who are assigned to the contagious disease hospitals for three months' training, and they are constantly exposed to scarlet fever during this period. Up to the time that preventive immunization was started, scarlet fever was prevalent among them. By means of the skin test and preventive immunization of the susceptible, it has been possible to prevent the occurrence of scarlet fever among these internes and nurses.

Altogether, three hundred and sixty nurses and internes were found susceptible and immunized with the toxin before they undertook the care of scarlet fever patients. In spite of the prolonged exposure to the disease, no case of scarlet fever developed in this series, while in a control series of two hundred and forty-two nurses and internes, who were not tested or immunized before exposure, scarlet fever developed in ten per cent.

In another series of six hundred and eight susceptible persons, immunized to the point of an entirely negative skin test with the toxin, there have been no cases of scarlet fever. The exposure in this series was direct but less protracted than that of the nurses, and many would doubtless have escaped infection without any preventive measure.

In order to learn something about the duration of immunity, groups of persons with positive skin

reactions were immunized, and retested at intervals of two weeks, three months, six months, one year, one and a half and two years. In each case the retests were negative. In interpreting these results, the possibility of exposure and an unrecognized infection occurring in the intervals between the tests must be kept in mind.

It has thus been demonstrated that scarlet fever toxin may be administered with safety in doses large enough to confer complete immunity, that active immunity is developed within two weeks after the last dose of toxin, and is sufficiently permanent to be of practical value in controlling the disease.

After the recognition of the specific soluble toxin of scarlet fever and its corresponding antitoxin, it became apparent that, if the scarlet fever patient could be supplied with antitoxin early in the disease, his chances of recovery would be greatly increased. In order to obtain a supply of antitoxin for this purpose, horses were immunized to the toxin by subcutaneous injections of gradually increasing doses.

Antistreptococcic serums had been in use for more than twenty-five years. In 1895, Marmorek prepared a serum by immunizing horses with injections of living streptococci. This serum was not produced with a view to its use in scarlet fever alone, but with the idea that it would be useful in all streptococcus infections. Since then many antistreptococcic serums have been prepared for use in scarlet fever. In some instances, notably that of Moser's serum, these antistreptococci serums were prepared on the supposition that streptococci were the causative agents in scarlet fever. Other serums, such as those of Aronson and Savchenko, were prepared to combat the harmful effect of the hemolytic streptococcus as a secondary invader. The various serums were obtained by methods which differed in detail of technic, but all had for their object the production of an antibacterial serum which would act directly on the streptococci. At times the first injections of living bacteria resulted in infections that killed the horses. In order to avoid this loss some workers preceded the injections of living cultures by preliminary injections of filtrates or attenuated cultures. This was done by Courmont, of Lyons, in 1898.

All attempts to standardize these antistreptococcus serums were based on their content of bacterial antibodies, estimated chiefly by means of agglutination tests. Of these serums, the one reported by Moser in 1902 was most widely used. It was obtained by immunizing horses with living serum-broth cultures of streptococci, isolated from the heart's blood of fatal cases of scarlet fever. Moser reported a series of cases treated with his serum, and two control series, one treated with normal horse serum, the other with Marmorek's serum. He noted that, following the administration of his serum, there was an improvement in

the symptoms of scarlet fever commonly attributed to the toxemia, as well as a fading of the rash.

At intervals during the last twenty-three years, various antiscarlatinal serums have been described and placed on the market. None of them has differed essentially from the serum described by Moser in 1902. At first such serums were employed extensively, but gradually fell into disuse. Their failure was due to lack of *specificity* and *lack of potency*, as well as to the frequent and severe serum reactions caused by relatively large doses of unrefined horse serum. Since the existence of an *antitoxin* for scarlet fever had not been recognized, and dependence was placed on the antibacterial nature of these serums, no attempt was made to *concentrate* the anti-streptococcic serums or test them for antitoxin.

In the concentrated and standardized scarlet fever antitoxin these objectionable features of the unconcentrated antistreptococcus serums have been overcome. The concentrated antitoxin is standardized against the toxin, and its potency expressed in the number of skin test doses of toxin neutralized by one cubic centimeter. We have found that 1,000 skin test doses of sterile scarlet fever toxin, injected subcutaneously into susceptible adults, are capable of producing transient symptoms of scarlet fever, provided there has been no previous immunization. An amount of antitoxin capable of neutralizing twenty times this quantity of toxin has been found to have definite therapeutic value.

Since it is undesirable to inject large quantities of even a refined serum, a minimum potency requirement has been established. This requirement was such that one therapeutic dose should not exceed twenty cubic centimeters. As we were able to produce more potent antitoxins, this minimum requirement has been raised from time to time, and it is probable that still further changes will be made which will increase the potency of the serum, and reduce the volume of the dose.

The prophylactic dose should be one-half the therapeutic dose. In actual practice we find that the prophylactic dose is employed up to the time that a rash appears. This means that it is really used as a therapeutic dose in the early stage of scarlet fever, and it should be large enough to cut short the course of the disease in this early stage. For this reason we have insisted on a comparatively large prophylactic dose.

The results of the administration of antitoxin have been studied in a series of three hundred cases of scarlet fever, and compared with a control series. The antitoxin in all our cases has been injected into the muscles of the thigh. We have employed intramuscular injections because the time saved by intravenous injection does not usually justify the increased danger to the patient.

In early cases the rash is the most convenient indicator of the action of the antitoxin. If enough

antitoxin has been given, there will be a definite fading of the rash within twenty-four hours, accompanied by an improvement in the general condition of the patient, especially noticeable in the early and in the toxic cases.

The results show that concentrated and standardized scarlet fever antitoxin is of practical therapeutic value. They emphasize the necessity for giving the antitoxin early in the disease before complications have occurred and before too much damage has been done to the tissues. If administered early in the disease and in adequate dosage, the antitoxin shortens the course of scarlet fever and reduces the number of complications and sequelae.

The *skin test* for susceptibility to scarlet fever used in connection with preventive immunization with the toxin, and the prophylactic administration of antitoxin, make possible the control of scarlet fever epidemics. In an institution where adequate facilities for throat and nose cultures are available, it is possible to get the epidemic under control within forty-eight hours.

The method of procedure in epidemics consists of making skin tests and throat cultures as soon as possible. The throat and nose cultures are made on blood agar plates which are incubated over night. The next day the skin tests are observed and the persons tested are divided into two groups according to the results of the skin tests. The susceptible persons are separated from the immune.

Each group is then divided according to the results of the throat and nose cultures. The immune persons who show no hemolytic streptococci in their cultures receive no further treatment. The immune persons, who have hemolytic streptococci in their cultures, are isolated from all susceptible persons on the supposition that they may be immune carriers of scarlet fever streptococci.

The susceptible persons are divided into two groups, according to whether or not they have hemolytic streptococci in the throat and nose. Those who show these organisms are regarded as infected, isolated from the susceptible persons who are not infected, and given a prophylactic dose of scarlet fever antitoxin.

In the susceptible persons who have no hemolytic streptococci in the nose or throat, preventive immunization with the toxin is started. During the course of this immunization they are not allowed to associate with the immune carriers or the infected susceptibles who have been protected by antitoxin nor are they permitted to come in contact with scarlet fever patients recently discharged from quarantine.

Since the passive immunity conferred by the antitoxin cannot be depended on to last more than three weeks, active immunization with the toxin may be started two or three weeks after the antitoxin has been given, provided the nose and throat

cultures have meanwhile become negative for hemolytic streptococci. It may be that some persons are classed as carriers or as infected who have hemolytic streptococci in their throats that are not capable of producing scarlet fever, but the short incubation period of scarlet fever does not allow sufficient time to test these organisms for specific toxin production.

In circumstances which do not permit throat and nose cultures it is best to make skin tests, and watch the susceptible persons closely for early symptoms of scarlet fever, such as fever and sore throat, and administer the prophylactic dose of antitoxin only if necessary. Administration of prophylactic doses of antitoxin to all the other members of a family when one is attacked by scarlet fever is scarcely justified by the results of skin tests, combined with throat and nose cultures which show that under such circumstances the other members of the family may be immune or not infected.

We have had an opportunity to employ this method of controlling scarlet fever in two hundred and eighteen families in which scarlet fever had occurred, and in epidemics in four different institutions. No more work is required than in making Schick tests and cultures on Loeffler's medium for the control of diphtheria, the chief difference being that in the case of scarlet fever blood-agar plates are used instead of the tubes of Loeffler's medium. No microscopic examination of the scarlet fever cultures is necessary. No new cases of scarlet fever developed in these families or institutions later than forty-eight hours after the control of the epidemic was undertaken, except in instances where for some reason it was not possible to follow the prophylactic administration of antitoxin by active immunization with the toxin before another exposure to immune carriers or the return of the convalescent scarlet fever patient to the home.

VENTILATION

We have been very much interested in the controversy that is going on among heating and ventilating engineers concerning the best means of securing an adequate and satisfactory method of ventilating homes and public buildings. Many conflicting opinions are expressed, and when we analyze what has been written on the subject we find there is a commercial basis for many of the opinions given. The question of ventilating ought to be discussed on its merits, and there should be no effort to uphold a system merely because it means financial gain through some patented process, or some special apparatus.

It is a well-recognized fact that an abundance of pure air is necessary for the proper functioning of the body and the maintenance of good health. There is a very constant chemical composition of the air outdoors over practically the whole of the surface of the earth. On the other hand, the

composition of indoor air is very variable, due chiefly to oxidization the most important of which is respiration. The oppressiveness of air upon entering a poorly ventilated room is noted by everyone, and it is conceded that the fatigue of the day's work is greatly increased when the ventilation is poor. Most of us have a high regard for the stimulating effect of outdoor life, either at the seashore or at the mountains during the summer, as one of the great factors there is fresh air. Air is one of the first necessities of life, for though we may live without food and water for days, we can live without air only for a few minutes. Therefore, our air supply is of more importance than our food supply, and from this one would naturally infer that good ventilation when we are in confined quarters would be one of the first rules of hygiene.

One of the most consistent articles on this subject, and not written by somebody having an axe to grind, is entitled: "A Rational Basis for Ventilation," by J. E. Rush, which appears in the August number of the *Journal of the American Society for Heating and Ventilating Engineers*. The author well says that the importance of proper ventilation, irrespective of how it may be obtained or what the basic factors, is recognized by all. The experiences in the Black Hole of Calcutta, and on the steamer Londonderry are too well known to be repeated, and the effect which a poorly ventilated room has upon the occupants is also well recognized. The symptoms of dullness, headaches, sleepiness, fainting, nausea and the like, have been experienced by most of us. We have expressed the opinion that good ventilation is an asset, and that poor ventilation may have a deleterious effect upon the individual, as has been experimentally shown by a decrease in the appetite and a disinclination to activity, and a decrease of work accomplished compared with the conditions when the individuals have fresh air. Medical men always have emphasized the great advantage of good air in the treatment of all types of diseases, and particularly for the treatment of diseases of the respiratory tract. The experience of Trudeau at Saranac Lake, which has been multiplied many times in this country and abroad, show not only the great advantage of fresh air in the treatment of tuberculosis, but that there is a definite indication that fresh air is one of the most valuable factors to the prolonged lease of life. Fresh air is tonic and invigorating. Vitiating air is depressing and enervating.

It seems to be the consensus of opinion that 68 degrees Fahrenheit is the proper maximum temperature for artificial heat in living rooms, and that such air should have a proper relative humidity. The human organism endeavors to adapt itself to great extremes of heat and cold, but the ability of the body to maintain these conditions is by no means unlimited. The heat

regulating center may fail or become inactive if conditions persist. The best average temperature seems to be around 68 degrees Fahrenheit, and slight changes from this temperature do not call the heat regulating mechanism into play immediately so that discomfort may result. This is probably because it is not warm enough to start active perspiration, nor so cold as to make one desire to exercise. Humidity greatly affects these factors, though it does not affect temperature alone. When high temperature and high humidity are present it has been shown to be extremely dangerous. Soldiers have been known to suffer from heat stroke, when marching in uniform, even though the temperature was less than 70 degrees Fahrenheit, and this effect was due to the increased humidity due to the clothing. When exposed to cold the first reaction of the skin vessels is blanching, but a secondary reaction dilates them, and this dilation acts as a protection to the part against freezing. Continued exposure to such conditions leads to a lowered tone of the whole heat regulating mechanism and an inability on the part of the body to adjust itself to its environment.

The question of humidity is as important as the question of heat or temperature, and in buildings this is especially important in cold weather. In winter the humidity indoors may be as low as ten per cent while in summer it often reaches eighty per cent. Actual tests have shown that under some heating conditions in winter time, the relative humidity in houses is reduced to the extremely low value of about two per cent. While this air is warm enough for comfort it is enervating because the high temperature has a great capacity for taking up moisture. Complaints frequently are made because such an excessively dry condition of the air causes undue parching of the throat and considerable discomfort. Some authorities believe that it predisposes to respiratory disease. It therefore may be concluded that some provision should be made for humidification because humidity of the outdoor air is not always suitable, especially when we have to heat it, and thereby reducing the relative humidity indoors considerably. Of course, other factors like that of odors, dust, and microorganisms make the problem of ventilation a complex one, though in general the question of heat and humidity is of most importance in addition to that of having an abundance of air that is fresh. Our old friend, Doctor Hurty, for more than twenty-five years health officer of the state of Indiana, used to emphasize the necessity of proper ventilation for our public schools, and it was his remark that "out of twenty thousand school children, three thousand were doomed to be killed in school from lack of proper ventilation." He might have added that a great deal of the illness and nervous disturbances of many of our patients can be traced to the hot,

vitiated, and not sufficiently moistened atmosphere of our homes.

There are two methods of ventilation. One, the so-called natural system, is usually accomplished by opening the windows. This probably is of great value under ordinary conditions in houses, but the system usually is inadequate for school houses or meeting halls where great numbers of people congregate. The artificial systems of ventilation are those which usually are installed in connection with heating systems. This is the type that usually is found in large buildings and schools, meeting halls, churches, and the like, and the ventilation is secured by forcing the air into the room, or by the vacuum system in which the air is exhausted from it, or a combination of the two methods.

Various modifications of these systems have been instituted from time to time in which the air may be washed or screened, or humidified, or some of it may be re-circulated. Most of these systems are based on a unit which attempts to supply thirty cubic feet of air per minute per person. In comparing the two methods, namely, open window ventilation and artificial ventilation, it will be noted that the former is by no means a controlled process, and the latter, if properly constructed and properly operated, should be able to meet any type of conditions that are likely to be placed upon it. The open window ventilation is haphazard and dependent upon chance, while the artificial system of ventilation is under control. Open window ventilation is only suitable for rooms that are of fair size and occupied by few people at a time. One of the objections raised is that open windows create drafts, and there seems to be an unreasonable prejudice against air in motion, though as a matter of fact a general draft is one of the best friends that a sick person may have, though a strong draft directed against a small part of the body is sufficient to produce a local chill and therefore is not desirable. It goes without saying that a person in a perspiration should not sit in a strong draft. The popular idea that colds are derived from drafts is greatly exaggerated, for the average cold undoubtedly is a germ disease. There is possibly a predisposition to colds from drafts, and perhaps from a thousand other conditions which we may speak of as lowering the vital resistance. It is only the presence of germs, plus a draft, or some other conditions, which produces the cold.

More and more people are crowding into the cities where the method of living, especially in winter, involves the spending of the largest part of the hours awake in poorly ventilated quarters. Fortunately, the crusade against tuberculosis has taught many people the value of fresh air. The insurance of a satisfactory night supply, by the use of sleeping porches, window tents, or even by widely opened bedroom windows does enough to

counteract the lack of satisfactory ventilation during the day. In the daytime the windows should be kept widely open in summer, and partly open in winter, except in bitterly cold weather. A good deal may be accomplished in winter by watching the house thermometer and making sure that the temperature remains close to 68 degrees Fahrenheit, or slightly lower. Unfortunately there is no simple, satisfactory and practical way of securing a proper amount of atmospheric moisture in houses heated directly by steam or hot water radiator. A fairly simple and partially effective method is to open the house as widely as possible, several times during the day, for fifteen or twenty minutes at a time to insure a thorough change of air. As a rule, times for such a procedure can be found in most households without inconvenience, and the better health resulting will more than compensate for what is lost through the increase in the coal bill.

Heating and lighting methods have distinct bearings upon ventilation. Even a small fire in an open fireplace is a valuable adjunct to the ventilation of a room by furnishing a passage for rapid egress of the air and the creation of a gentle current in the atmosphere of the room. With the open window ventilation it usually is necessary to have increased radiation. The New York plan of open window ventilation perhaps is as satisfactory as any, and it includes the use of a deflector that is placed under the lower sash and provides for a horizontal entry of air and a vertical discharge. In other words, the current of air which comes through the window is deviated upward into the room. Beneath this deflector there is a radiator for the purpose of heating the air discharged from the deflector. It is advisable to have an exhaust system of some kind on the wall opposite the window or windows where the ventilator is installed. The temperature of the room should be kept at not less than 67 degrees Fahrenheit. An eastern exposure of the windows is unsatisfactory as it does not give the full advantage of prevailing winds. This system of ventilation is not so advantageous where noise, dirt and odors from the street make it inconvenient to keep the windows open. Furthermore, it is not indicated in rooms that are occupied by many people, as window ventilation is inadequate in such instances. For living rooms and sleeping apartments in homes, it is quite effectual. Of course, it is uncontrolled ventilation, and as such does not meet with favor on the part of ventilating engineers.

The controlled method of ventilation is a forced ventilation through some appliances or apparatus that maintains a constant circulation of air. There are many arguments against such a system, and some of the systems do not ventilate, though it must be admitted that the ventilation plan in any case, in order to work properly, must have a certain amount of supervision. One would hardly think of complaining about a watch that he had

bought not keeping time because he neglected to wind it. Any system of ventilation, whether it is the open window type or the mechanical type, requires constant and intelligent supervision. It is conceded generally that anywhere except in the home that the controlled ventilation is by far the best and most efficient, inasmuch as it is absolutely controlled, both as to the amount of fresh air that is to be brought into the room as well as the amount to be removed by suction or evacuation.

One application of ventilation installation which merits more attention than it has received in the past, is the possibility of artificially cooling the air of occupied places in warm weather. We seldom think of cooling the air during the summer, though perhaps this procedure is quite as practical though more expensive usually, and perhaps quite as important from the view of hygiene, as heating air in winter. The passage of the air through a humidifier will moisten it and effect an appreciable degree of cooling as well, but this cooling may be increased by passing the air over coils in which cold water or brine is circulating.

In considering the subject of ventilation the cost should be an insignificant matter, as comfort and health are not measured by a standard of dollars and cents. For homes the window ventilation is very satisfactory, and all families should be urged to adopt it in lieu of any other form of ventilation, though as already stated, it ought to be under careful supervision. No system of ventilation works itself. Successful ventilation of our public buildings cannot be secured by haphazard means. There we need controlled conditions of air just as we have controlled conditions of milk or controlled conditions of water. If we are to have a certain type of air and a certain amount of it, there is little question in anyone's mind but that if these conditions can be determined definitely and scientifically, the type of air which is desired can be delivered by mechanical appliances, though naturally there are limits to uncontrolled ventilation, as it is not adapted to small or modest sized buildings nor to buildings that are located in dusty and odorous surroundings. It also is not applicable to school buildings, inasmuch as teachers cannot be relied upon to keep the windows open and properly regulated. Controlled ventilation is desirable in all public buildings, but it demands intelligent supervision in order to be efficient. It matters not what particular system is used as long as it works, and the last is the most important consideration of all.

NEWS NOTES FROM INDIANA UNIVERSITY SCHOOL OF MEDICINE.

A reception and dance for new students, nurses and social service workers was held at the medical school building at the close of the first week of

school, the medical faculty being hosts. Refreshments were served, followed by dancing.

Indianapolis, Ind., October 14.—The opening of the first semester of the Indiana University School of Medicine September 15, found all classes filled to capacity. Additional equipment had to be purchased for the bio-chemistry laboratory to accommodate the large class coming from Bloomington, whose members could not well be refused entrance. The total enrollment was 405, with 103 sophomores, 96 juniors, 83 seniors and three unclassified in the school here, and 120 in the freshman class at Bloomington. No changes from last year were made in courses or in the teaching staff. Quiz sections were added in the courses in therapeutics and in pharmacy, and the lecture course in minor surgery was shifted from the second semester to the first semester of the sophomore year. Considerable crowding in laboratory sections was reported, as the rooms were not built to accommodate the present large classes, and there was a shortage of lockers and microscopes. The policy of buying microscopes for rental to students was discontinued about ten years ago and the supply on hand at that time was designed for about one-third the present number of students. Many of the students own their own microscopes now, but the expense deters many others since the University is no longer able to finance the purchase and sell the instruments on time payments to students.

Dr. Frank F. Hutchins, professor of mental and nervous diseases, with Mrs. Hutchins, started early in September on a world tour. He obtained leave of absence for a year and expects to spend part of his time in study while in Europe. His work has been assigned to other members of the present staff in the department of medicine.

Construction of the William H. Coleman Hospital for Women, a splendid new unit of the Indiana University Medical Center, was begun recently, and the building will be ready for use in the summer of 1927. This hospital is the gift of Mr. and Mrs. William H. Coleman, of Indianapolis, in memory of their daughter, Suemna Coleman Atkins. It will be used exclusively for obstetrical and gynecological cases. It will be administered as a part of the School of Medicine, and the instructional value of the institution will be emphasized. Medical and surgical service will be provided by the staff of the School of Medicine and students will have the advantage of all clinical material. Nursing service will also be provided under the administration of the medical school, and the hospital will be an additional unit with the Robert W. Long and James Whitcomb Riley hospitals, for the training of nurses in the Indiana University Training School for Nurses. When equipped, the new hospital will cost

\$350,000. It will have a frontage of 206 feet and depth of 43 feet, and be three stories in height. It will have bed capacity for seventy-five patients, with ample space for surgeries, delivery rooms, laboratories and special service rooms. A tunnel will connect it with the central power plant and other buildings of the medical center so that patients and supplies can be carried to other units without exposure in bad weather, and the expense of an additional plant for heat, water and light service will be avoided. Robert Frost Daggett, of Indianapolis, designer of the Riley hospital, is the architect, and construction is in charge of Leslie Colvin, Indianapolis.

Enrollment in the Training School for Nurses is now 147. The class of probationers admitted September 1 numbered forty-eight, being much larger than any other semi-annual class in anticipation of the construction of the \$500,000 Ball nurses' home, which will accommodate about three hundred. There are thirty-two seniors, while last year's class had seventeen. Part of this increase is due to the additional facilities offered by the Riley hospital. Classes in the training school are now held in the basement of the medical school building.

Eleven courses in social service work are being offered this semester under the joint jurisdiction of the department of medicine, and the department of economics and sociology of the division at Bloomington. The courses are being taught in Indianapolis, and are open to interested adults as well as University students in professional social service training. They include environmental medicine and medical social service.

Post-graduate courses are being given this semester by the medical faculty at the invitation of county medical societies at Elkhart and Terre Haute. At Elkhart courses in general medicine were started September 2, and lectures in the specialties, beginning with obstetrics, were started at Terre Haute September 14. The county societies are extending the influence of this post-graduate work by inviting the participation of physicians from neighboring counties. Courses in other counties were to be started at later dates. Instruction is provided without charge by the School of Medicine, though traveling expenses are paid by the societies benefited.

Dr. John F. Barnhill, professor of surgery of the head and neck, gave one of the instructional lectures at the meeting of the American Academy of Ophthalmology and Otolaryngology in Colorado Springs, Colorado, the week of September 13.

Dr. S. E. Smith, provost of Indiana University, was called to Washington, D. C., the week of September 20, by Secretary of the Interior

Hubert Work, as a member of a committee of five to make a survey of the St. Elizabeth's Hospital for the Insane, a government hospital of 4,000 patients. Dr. Smith is a specialist in mental and nervous diseases and was formerly superintendent of the Eastern Indiana Insane Hospital at Richmond. Other members of the committee were Eastern men. Conditions in the hospital were the subject of criticism in the last congress.

Robert E. Neff, registrar of the School of Medicine and administrator of the Indiana University hospitals, was in attendance at the meetings of the twenty-eighth annual convention of the American Hospital Association at Atlantic City, N. J., the week of September 27, being appointed a delegate by Governor Ed. Jackson.

C. R. MACDONNELL,
Indianapolis.

VISCERAL MANIFESTATIONS OF CARDIOVASCULAR HYPERTENSIVE DISEASE

The visceral manifestations of hypertension arise, in a large measure, from the arterial changes that accompany this condition. These changes are secondary to, and apparently the result of, the hypertension, or are perhaps excited by the same agency responsible for the vascular spasm. The renal changes usually observed in advanced hypertension are thought to be secondary to changes in the arterioles of the kidney. Neuroretinitis is not observed in arteriosclerosis without hypertension, nor is it dependent on impaired kidney function alone. It is in some manner associated with hypertension and the accompanying renal changes. Next to the kidney the heart suffers as a result of increased work, actual changes in the heart muscle playing a very unimportant role. The relation of the kidney to hypertension is still a debated question. Nephritis is the one established etiologic factor. What actually occurs, Joseph L. Miller, Chicago (*Journal A. M. A.*, Aug. 7, 1926), says, is still a mystery. Its rather rapid development and frequently transitory character strongly suggest a functional disturbance. The group, in which renal changes, if present, appear late in the disease, is now designated as essential hypertension, the appearance of kidney disturbance being considered secondary to the high blood pressure and arterial changes. The vast majority of hypertension patients fall in this group. The term essential hypertension is not explanatory. It is merely a term employed to exclude the kidney as the exciting cause. The mere fact that a kidney responds in a normal manner to present functional tests does not prove that all the varied products of protein metabolism are being properly eliminated. At present chemical examination of the blood provides fairly accurate quantitative determination of only the urea nitrogen, uric acid, creatinine and total nonprotein nitrogen. The identity of the nitrogen compounds exclusive of those mentioned cannot at present be determined. The two most frequent causes of disability or death are cerebral hemorrhage and cardiac decompensation. Termination by uremia is relatively infrequent. It is impossible to make an accurate prognosis in the ordinary ambulatory hypertensive case. The more marked the renal changes, the more grave the prognosis. Until the causation of hypertension is determined, preventive measures are largely speculative. The active treatment of hypertension is unsatisfactory. Reported beneficial measures have failed to take cognizance of the extreme variation of blood pressure in untreated patients. In hypertension, fluctuations in blood pressure are so marked and unexpected that before any therapeutic measures are undertaken, the patient should be kept under observation for several weeks with frequent pressure readings and these compared with a similar series of readings during or after treatment. During treatment, the patient's manner of life should be the same as in the control period. The high peaks following emotional upset give a clue in regard to one phase of treatment—the necessity of leading a life as free from tension and excitement as possible. In Miller's opinion, advice along these lines holds first place in the treatment of this disease. It is highly improbable that any quantity of water drunk by

a patient will raise pressure. In the absence of edema, free water drinking may be encouraged. It is fair to assume from the evidence that there is no advantage in excessive restriction of chlorides. In fact, this may lead to impaired nutrition and may be actually harmful. The diet should be regulated to avoid obesity, as this means additional strain on a heart already overburdened. Complete withdrawal of coffee or tobacco is unwarranted, and often serves to remind the patient of his disease. The patient's comfort and happiness should always be considered and unnecessary restriction avoided. The effect of bleeding is very transitory. Sweating temporarily lowers the blood pressure. Whether it actually is beneficial to the patient is questionable. The use of drugs to lower hypertension has been largely discontinued. They do not reach the cause of the trouble and rarely add to the patient's comfort, and they are always transitory in their action. On the whole, the treatment of hypertension is one of many unsolved therapeutic problems. Under these circumstances, it is the duty of the physician to give advice and encouragement that may at least add to the patient's happiness, to avoid reminding him of this menace to his health, and to divert his mind from his disease by advising against the frequent taking of blood pressure, as such a procedure only reminds him of his trouble.

LEAD POISONING IN NURSING INFANTS

Herbert B. Wilcox and John P. Caffey, New York (*Journal A. M. A.*, May 15, 1926), report two cases of lead poisoning in nursing infants, due to the use of lead nipple shields. Neither infant was fed from nursing bottles. Lotions and ointments were not used on the breasts in conjunction with the breast shields. Neither infant received treatment with lead-containing plaster or dusting powder. Careful questioning failed to reveal any source suggestive of lead toys, inhalation of lead dust, lead impregnated clothing, or of lead foreign bodies in the stomach. The clinical picture in both cases was that of vomiting, meningeal irritation and anemia. None of the manifestations in the classic lead triad were present—colic, palsy and the presence of a lead line in the gingival mucous membranes. This suggests that, in nursing infants, lead poisoning is probably too seldom considered as a diagnostic possibility when such common symptoms as vomiting, general nervousness and anemia constitute the clinical picture. The history of a source of lead, basophilic degeneration of the red blood cells, the changes in the spinal fluid, and the chemical detection of lead in the excreta were the most valuable aids and the final proofs in the diagnosis of lead poisoning in these cases. The presence of lead in the feces of both patients demonstrates that lead in appreciable quantities may be ingested by infants suckling breasts which have been exposed to lead shields. The detection of lead in the urine in one case is absolute evidence that after ingestion from this source lead can be absorbed into the blood stream and in sufficient amounts to affect the blood and to cause changes in the spinal fluid. These findings warrant the conclusion that lead poisoning in both patients was caused by the use of lead nipple shields.

**THE JOURNAL
of the
Indiana State Medical Association**

Devoted to the Interests of the Medical Profession of Indiana
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EDITORIALS

THE WEST BADEN SESSION.

The 1926 session of our Association was held at West Baden last month, and it proved to be one of the best sessions in the history of the Association. The official registration was nearly nine hundred, and there were a large number of guests, including the wives of attending physicians, and members of adjoining state medical associations. The weather was hot, but when we learn that it was hot all over the state at the same time we can not blame West Baden for our discomfort.

The arrangements were wonderfully satisfactory. This was due not only to the commodious and well-appointed West Baden Springs hotel, which offered facilities for properly handling all of the various enterprises and activities connected with the convention, but in a large measure to the guarding genius, our efficient secretary, Tom Hendricks, assisted by Doctor Dowden, the local medical representative at the West Baden Springs hotel. In fact, it was through Dr. Dowden's untiring solicitude for the Association and those in attendance at the convention that things went off smoothly, and all of the various little unpleasant wrinkles that usually come up in connection with every convention were ironed out satisfactorily.

The meeting places for the various sections were well lighted, well ventilated, and free from the noise that oftentimes mars meetings held in the larger cities of the state. The exhibitors were well cared for in the large atrium which constitutes a beautiful immense court in the center of the hotel. The large dining room was ample for the accommodation of the guests at the banquet given on Thursday evening.

The scientific papers and discussions were up to the usual standard of excellence, and many remarked about the progressive features introduced, not the least of which was a lecture and demonstration covering periodic physical examination following the plan outlined and recommended by the A. . A.

The vaudeville features at the entertainment on Wednesday evening were well received, and the banquet on Thursday evening was an enjoyable affair. The entertainment committee deserves praise for having only two speeches at the banquet, one an excellent talk on the financial needs of the Indiana University School of Medicine, by

Dr. Burton D. Myers, of Bloomington, and the other a well received address entitled "Plain Tales from the Hills of Kentucky," by ex-Governor Morrow, of Kentucky. Many of those attending the convention enjoyed the facilities that were offered for out-door sports, including golf, horse-back riding, tennis and other like diversions.

Of especial importance was the work of the House of Delegates, which body passed with minor modifications the revised constitution and by-laws as printed in the September number of *THE JOURNAL*. We now are governed by rules and regulations which make it possible for us to carry on the business of the Association in a systematic and business-like way. Perhaps the principal changes in the constitution are embraced in the sections providing for the appointment of reference committees to which all important matters are referred before being acted upon by the House of Delegates. Provision also is made for the appointment of an executive committee of five which in reality constitutes the board of trustees of the Association, to whom all business matters will fall in the interim of meetings of the Council and the House of Delegates. Then there is a budget committee which will provide for expenditures and instead of having vice-presidents, we now have a president and a president-elect.

Among some of the important actions by the House of Delegates are the following:

Endorsement of the plan of the A. M. A. whereby county medical societies automatically take charge of relief work in case of disaster.

Endorsement of the resolution passed by the American Medical Association at the Dallas session concerning the admission of expert testimony of alienists in cases of a criminal character.

Endorsing a campaign of education having for its purpose the acquainting of the people of Indiana with the value and importance of immunization and protection of children from diphtheria—children of both school age and pre-school age. In this connection it was recommended that the Association should co-operate with the state health department, the state Parent-Teacher's Association, local welfare organizations, and local health officials in an effort to secure the widest possible use of toxin-antitoxin treatment in the prevention and control of diphtheria in the state of Indiana.

Endorsement of the bill before congress known as the Federal Lye bill, which has as its object the safeguarding of the distribution and sale of certain dangerous caustics or corrosive acids, alkalis, and other like substances.

Approval of the effort to secure legislation in Indiana which will limit the continuous hours of employment of female labor.

Radical *disapproval* of the action of the American Public Health Association in recommending and providing for doctors of public health with a degree attached, who have not taken the full course of medical instruction.

Disapproval of all bills and all efforts to prolong the life of the Sheppard-Towner law.

Disapproval of the bill now in congress to amend the Harrison anti-narcotic law insofar as it increases restrictions which interfere with the proper prescribing of narcotics, and under conditions which would work a hardship upon the profession.

Disapproval and condemnation of the bill now in congress which aims to regulate the practice of chiropractic and create a board of chiropractic examiners for the District of Columbia.

The election of officers resulted as follows: President, Frank W. Cregor, Indianapolis; president-elect, George R. Daniels, Marion; treasurer, William A. Doeppers, Indianapolis, re-elected; delegates to the American Medical Association for two years, Harry Elliott, Brazil, and David Ross, Indianapolis; alternates, William H. Kennedy, Indianapolis, and F. S. Crockett, Lafayette. Delegate to the A. M. A. to fill the unexpired term of George F. Keiper, E. M. Shanklin, Hammond. Indianapolis was selected as the place for the annual session in 1927.

THE RILEY MEMORIAL HOSPITAL

In the September number of *THE JOURNAL* we commented on the criticism of many members of the medical profession concerning the management and policies of the Riley Memorial Hospital for Children located in Indianapolis, and attempted to point out that the plan under which the hospital is managed could scarcely be improved upon insofar as it does justice alike to the public and the medical profession. We also attempted to point out that most of the abuses that are charged against the hospital have their foundation in counties from which crippled children are sent to the hospital for attention. However, as predicted, the matter came up at the West Baden session of our Association for discussion, and we are very glad that both sides were given an opportunity to be heard. The matter ended by a tabling of all resolutions pertaining to the subject, though we feel sure that all those present who heard the controversy obtained a much better understanding of the whole question than they had before.

Perhaps the idea that was most important to get before the medical profession, and which was emphasized at the meeting, is the fact that abuses of the Riley Memorial hospital can be traced largely, if not wholly, right back to the judges who commit the crippled children, and to medical men who are sanctioning the commitment. Probably most of the criticism that is aimed at the Riley Memorial hospital has been due to a misunderstanding of the rules and regulations for admission of patients to the hospital, and the consensus of opinion of those who attended the meeting at which the discussion occurred was that the members of the medical profession of Indiana

ought to have a better knowledge of the manner in which the hospital is conducted, as well as the rules under which patients are admitted. In an effort to help solve the problem, we herewith give the exact wording of the law concerning the rules and regulations for admission, and the same are as follows:

Section 4. The judge of any circuit, criminal or juvenile court of the state of Indiana is hereby empowered to commit to said hospital any child under sixteen (16) years of age, having a legal settlement in any county of this state in which said judge has jurisdiction, who shall appear to the satisfaction of such judge, after a public hearing, to be suffering from a disease, defect or deformity, which may be benefited by treatment in the said hospital, and whose parent or legal guardian is not financially able to defray the necessary expenses of such treatment. Such hearings shall be had in a summary manner on a petition filed before such judge, by a citizen of the county in which said child has a legal settlement, and shall be had in the presence of the parent or legal guardian of such child, whose attendance may be enforced by said judge, and in the presence of the prosecuting attorney of said county. *Such judge may, in his discretion, have such child examined by one or more reputable physicians, who shall make and file a written report of the history, condition and probable results of the treatment of such child.* If such judge shall find on hearing, that such child is a proper subject for treatment in said hospital, and shall commit the same thereto, he shall cause the clerk of said court to make an application for the admission of such child to said hospital on a form to be furnished by the superintendent thereof. If such application be accepted by the superintendent of said hospital, he shall notify such clerk of that fact, and when the patient may be received and thereupon said judge shall provide some suitable person to accompany said child to said hospital, and to deliver the same to the superintendent thereof. All costs of such proceedings shall be paid on order of the judge by the county from which such commitment is made.

Sec. 5. The cost of care and treatment of any such child, committed to the said hospital as aforesaid, under the foregoing section, shall be paid by the county in which the afflicted child has a legal settlement. The management of the hospital shall keep an accurate account of the cost of such treatment, and a properly certified statement thereof shall be rendered quarterly to the auditor of the state of Indiana, who shall issue his warrant on the treasurer of state for the amount thereof, to be paid out of any funds in the general fund in the state treasury not otherwise appropriated, payable to the treasurer of the board of trustees of Indiana university. The treasurer of the state of Indiana shall then reimburse the general fund for the amount so paid out, by collecting from the proper county a like amount or amounts in the next succeeding semi-annual settlement with such counties. No compensation, however, shall be charged or allowed to the physician, surgeon, or nurse for the treatment or care of any such patient, other than the compensation paid therefor by Indiana university. All funds paid to the treasurer of the said board of trustees, by the treasurer of state for the several counties, as herein provided, shall constitute a fund, to be used for the maintenance of the hospital as such board may direct.

By reference to these sections of the law it will be noted that admission must be by commitment of a judge of any circuit, criminal, or juvenile court of the state, and the law provides that no commitment shall be made except through petition and hearing, and that the latter shall be in the presence of the parent or legal guardian of such child. Attendance of parents or guardians may be enforced by said judge and the hearing must

be in the presence of the prosecuting attorney of the county. It goes without saying that if a child committed to the hospital comes from parents who are not indigent, then somebody must be guilty of perjury. It also will be noted that the law provides that the judge may, in his discretion, have such child examined by one or more reputable physicians who shall make and file a written report of the history, condition, and probable results of the treatment of such child. If one analyzes the law thoroughly it will be seen that the abuses of the Riley Memorial hospital can be traced right back to the judge who is responsible for the commitment, and indirectly to the physicians in the community in which the child lives who are derelict in duty in failing to give the judge the benefit of their advice concerning the nature of the case and the probable outcome of benefitting it by treatment. Therefore, in protecting the community as well as the medical profession, it becomes necessary for someone to take a more active interest in the cases that are proposed for commitment to the Riley Memorial hospital, to the end that the provisions in the law governing this question will be enforced and that any present abuses will be checked. If, as was pointed out by one of the speakers at West Baden, parents amply able to pay have succeeded in having their crippled children admitted to the Riley Memorial hospital, then someone has erred in following the provisions of the law, and there has been a flagrant abuse of a worthy charity and benevolence. Likewise, if the patients having some of the commoner diseases or defects which may be treated or corrected at home have been committed to the hospital, then someone has erred in judgment, and, in such instances the members of the medical profession are largely or entirely at fault.

As we attempted to point out in the September number of *THE JOURNAL*, we believe that if the law is followed out in every particular we cannot see how just complaint against the hospital can be made. In fact, we do not see how the law can be improved upon. No law can be made absolutely perfect, and with such an enterprise as the Riley Memorial hospital certain abuses are bound to occur, and yet we believe that the abuses will be cut down to a minimum if the people, aided by the members of the medical profession, attempt to have commitment of patients to the hospital follow the provisions of the law only. So far as the medical profession is concerned, it can do much toward stopping abuses if it makes known the well-established fact that as a matter of charity alone no case need be committed to the Riley Memorial hospital, and that the medical profession stands willing and ready to sanction the commitment to the hospital of any cases which the local profession cannot handle satisfactorily. On the other hand, the medical profession should make it a point to see that no judge commits to

the hospital any child from well-to-do people, as there are other avenues through which such a case may be handled. Furthermore, the medical profession should make it known that it will not sanction the commitment of cases that offer no hope of being relieved or improved by medical and surgical attention.

It may not be amiss for the medical societies in the various counties throughout the state to inform the judges who have the power of committing patients to the Riley Memorial hospital that the medical profession stands ready to offer its services to the deserving poor and its advice and assistance in carrying out the provisions of the law governing admission of patients to the Riley Memorial hospital, to the end that the county is not unduly taxed for patients referred to the Riley hospital, nor that any deserving case is denied the privilege of the attention that such hospital can give. In short, and in conclusion, we feel that if the medical profession, individually and collectively, makes a little more effort to learn the particulars concerning the manner in which patients are committed to the Riley Memorial hospital, and makes its influence felt in bringing about strict adherence to the provisions of the law as pertains to the commitments of patients to the hospital, you will hear little about abuses. Furthermore, it would be well for the medical profession to remember that the Riley Memorial hospital is an integral part of the Indiana University School of Medicine. The management of the school has no desire to use the hospital in any other way than as a teaching institution.

The medical profession ought to take cognizance of the fact that if it begins to stir up some inconsistent and unreasonable criticism of the manner in which the Riley Memorial hospital is conducted, we may find the financial contributors to the hospital, and even the legislators, taking an antagonistic attitude and turning the hospital into an open one for the admission of all who may come, irrespective of their financial status. That would be state medicine with a vengeance. We will do well if we let well enough alone.

HAY FEVER

The hay fever season is now over, but it is not out of place to discuss the treatment of this common and very annoying malady. Within recent years it has been customary for those who see many hay fever patients to use pollen allergen solution for the diagnosis and treatment of the affection. Those who have been most successful in handling this disagreeable affection are favoring the pre-seasonal treatment which if properly selected and properly carried out gives either complete or practically complete relief in fully 75 per cent of the cases. However, even though

pollen desensitization is about as specific for seasonal hay fever as quinine is for malaria, it is absolutely necessary that the correct pollen or pollens should be selected, and the treatment carried on in an efficient manner. The patient should be started with a dilution just greater than the weakest dilution to which the patient is sensitive. The treatment should begin about ten weeks prior to the usual onset of the symptoms, and the injection should be given at four and five-day intervals. Patients differ in their sensitiveness to pollen extracts, and they therefore vary in their ability to take large doses. Generally speaking, the larger the dose that is taken the better the effect. When the dosage has reached the point where the patient shows the slightest constitutional symptoms or even a reaction, epinephrin solution should be added to the pollen allergen, and in this way the absorption is made slower and larger doses may be administered. Oftentimes the patient is sensitive to more than one pollen, and if so it is necessary to select the pollens to which the patient is susceptible.

Several authorities have reported good results from the use of pollen extracts when the treatment is instituted during the hay fever attack, but as a general proposition it is not a satisfactory procedure as occasionally a patient is made much worse in consequence. Still other authorities have highly recommended the use of the ultra-violet rays in conjunction with various local treatments ordinarily prescribed for hay fever patients. The writer of this editorial note knows of three well marked cases of hay fever that have been controlled to such extent that the patients have been comfortable as a direct result of the use of large enough doses of atropine to control the secretions, and the daily use of ultra-violet radiation by direct application of the rays to the nasal chambers, the applicator being applied for one or two minutes in both the lower and upper meatus of each side. Whether this treatment will prove as efficacious in a larger number of cases remains to be seen.

On the whole it would seem that the pre-seasonal treatment with pollen extracts offers the most hope, but this treatment must be prescribed and used with intelligence, including due discrimination as to doses and the kind of pollen to be used, if the best results are to be secured.

FIGHTING MEDICAL QUACKERY

The reputable medical men of the state of North Carolina have started a war on all forms of medical quackery. The effect of this action has been reflected in the results of the recent election which the editor of *Southern Medicine and Surgery* says indicates that the public is not entirely simple, and encourages one to believe that if the doctors will expose ruthlessly every quack who comes among them this same public will appre-

ciate the service and support the doctors in a way in which they have not been supported before. The co-operation of other states in a movement to abolish all forms of medical quackery is solicited.

We always have maintained that medical men could accomplish almost anything if united in action, but the trouble of it is doctors seldom unite on anything. If the medical men of North Carolina have become a unit in their fight against medical quackery, we offer our sincere congratulations, and we hope that we may emulate the example that has been set. However, we never will accomplish anything in Indiana unless we get over the spirit of "Let George do it," and cut out some of our carping criticism, personal ambitions and pet peeves. Furthermore, it takes a lot of courage to fight quackery, and it is our observation that there are few men who want to take the initiative. Any war on quackery must be conducted by medical societies as societies, and not by individuals. Our state association might take the initiative by demanding that the State Board of Medical Registration and Examination shall ruthlessly expose and prosecute all offenders, but with this demand for action must go the promise of the Association that the Board will be upheld in every particular in its fight for right principles and the protection of the public.

WHY WE CONDEMN "THE KOCH CANCER CURE"

A reader of *THE JOURNAL* asks us why we are opposed to the Koch cancer cure, and says that we ought to investigate the claims before placing our stamp of disapproval upon the cure. Answering briefly, we will say that we are opposed to any so-called cure that is exploited apparently for commercial purposes, and which has not proven its worth to unbiased minds. The Koch cancer cure has been investigated by a committee of reputable physicians who were appointed by the Detroit Medical Society for the purpose of discovering the truth or falsity of the claims put forth. The committee has made its unfavorable report, and it seems to us that the report is worthy of the acceptance of the medical profession. We frankly admit that we are distinctly opposed to the exploitation of any so-called cure, and the swindling of a class of sufferers who deserve intelligent, sympathetic and effective treatment at a price that is within reason. However, irrespective of the exploitation and commercialism that may accompany any such enterprise as the Koch Cancer Foundation, we are willing, to use a slang phrase, "to give the devil his dues" and whenever Koch or any of his satellites or followers can prove to an intelligent and unbiased jury of medical men that he really has a remedy or a cure that will produce even a fraction of the relief that he claims to produce for cancer patients, we will take off our hats

in substantiation of his claims and accept the verdict that he now gives without proper substantiation. It is easy enough to make claims, and easier still to find credulous people who for one reason or another will accept the claims, but it is quite another thing to have such claims supported and approved by an intelligent jury of trained investigators. At the present time the Koch cancer cure appears to be a secret remedy that is exploited for commercial gain, and as yet no proof has been offered concerning the value of the remedy that justifies us in believing that it possesses any considerable amount of merit. In short, we place Koch in the same class as Abrams, whose claims were discredited and proved to be unworthy of acceptance. Abrams, Koch, or anyone else cannot say truthfully that the medical profession does not accept their discoveries and work at their full value, but the medical profession is "from Missouri and has to be shown," after which it is willing to bow down in adulation and admiration, but not before.

MATERNAL MORTALITY IN CHILDBIRTH

A bulletin from the United States Department of Labor states that the maternal mortality rates in the United States are today among the highest in the civilized world, and but a slight decrease in these rates has occurred since the beginning of the present century. If this is true, what has become of the boasted benefits of the Maternity and Infancy act which has created such a fertile field for discussion and which has cost our country several millions of dollars during the past few years. In reality the sponsors for the Sheppard-Towner act have been making blatant claims concerning the great reduction in maternal mortality rates since that act went into effect. These claims do not seem to tally with the statement we have just quoted.

An analysis of the causes of maternal deaths in this country shows that the most important single cause is puerperal septicemia due to infection resulting from lack of surgical cleanliness, and almost one hundred per cent preventable through careful asepsis. In their recommendations for prevention the United States Department of Labor is quite bold in asking for effective supervision by a public health agency of hospitals, and the training and admittance to practice of physicians, mid-wives and nurses, and the requirement that all cases must be reported as in the case of infectious diseases. This would seem to imply that the bureau has no faith in the asepsis practiced by physicians, mid-wives and nurses, and it even takes a crack at the hospitals as well. To our notion this is unfair and does not accurately state the case, for if the truth were known it is quite probable that a large percentage of the cases of puerperal septicemia occur in women who are

not hospitalized, nor do they have the attention of a well-trained physician. If this is the case, why take a crack at medical men, nurses and hospitals, and why not put them under the domination of boards of health instead of under a lay board like the Department of Labor? Complaint also is made that many of these mothers had no medical pre-natal care and the bulletin quotes the conditions in Baltimore where with an excellent medical school and hospital and well-developed clinics nearly half of all married mothers having babies during a single year have no medical pre-natal care of any kind and only 5 percent received care that could be classified as grade A. Gary, Indiana, also is cited, where 70 percent of the mothers have not received any medical pre-natal care.

As a preventive program the bureau suggests that there should be regulation of the practice of obstetrics by requiring a license to practice for both physicians and mid-wives by establishing minimum requirements for obtaining such a license and by defining and prescribing penalties for malpractice. The bureau also asks that public and private hospitals and maternity homes should be licensed and subject to inspection, and that the government or public furnish better facilities for training medical and nursing personnel, and more adequate clinics, hospitals and maternity homes, and subsidies from state and federal sources are asked to carry out the program.

To our notion much of this agitation is getting the cart before the horse. What we need most of all is more stringent legislation pertaining to the licensing of physicians to practice medicine. We haven't any fear concerning the lowering of the maternal mortality in childbirth if those permitted to practice medicine have complied with rigid requirements as to education and training, but we do have fear for the consequences when our state legislature is willing to place its stamp of approval upon all the various pseudo-medical cults that ask for recognition, and that is exactly what has occurred in a number of states, and it is these incompetents who oftentimes help to increase the maternal mortality rate. We are not going to make many advances in the protection of the public from preventable morbidity and mortality until we recognize the fact that those who care for the sick and suffering, including the pregnant mother, must have suitable education and training. We must stop giving the illy prepared the legal right to practice.

WE are not very far off when we say that it has rained almost every day throughout the summer and early fall. The disagreeable weather has increased the amount of sickness, so doctors are busy. However, if the rain keeps up we had better advise our patrons to build arks rather than take pink pills and pale powders.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital. We invite and urge you to use this Service.

It is absolutely free to you.

The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve you.

Ye gods, but it was hot in West Baden during the annual session of our Association, but let us not blame West Baden for the heat when reports show that it was hot all over the state during the time that our Association was in session.

SENATOR WATSON may not be of the same political faith as many doctors in Indiana, and yet we must say that when the medical profession desires the support of a senator in Congress, you always can put your finger on Jim Watson and count upon his support.

OUR Association adopted the new constitution and by-laws, with minor modifications, as printed in the September number of THE JOURNAL. The Association now can go ahead in a systematic and business-like way, and functionate in every particular better than ever before.

ELBERT HUBBARD said that the man who needs a rest is the one who has just returned from a vacation. Certainly it does seem a little hard to buckle down to hard work after a fishing or hunting trip, as we happen to know after enjoying two weeks of fine fishing in Northern Canada.

It is unfortunate, though an unintentional oversight, that the action of the A. M. A. in favoring the discontinuance of the manufacture and distribution of heroin was not endorsed at the West Baden session of our Association. We can well get along without heroin as a therapeutic agent.

WE no longer have vice-presidents. The new constitution and by-laws provides for a president and president-elect. The latter will serve in case the former dies or is removed from office. Dr. Frank W. Cregor, of Indianapolis, is the president and will serve at the annual session of 1927, and Dr. George R. Daniels, of Marion, is the president-elect, who will serve at the annual session in 1928.

AN old gray-headed doctor who sat in the front row watching the very scantily clad, well-formed,

and good-looking female dancer who was entertaining the members and guests at the annual session of the Indiana State Medical Association during the first evening's program, was heard to make the remark: "Until tonight I never knew that a study of the female anatomy was quite so interesting."

DR. FRANK W. CREGOR is the new president of the Indiana State Medical Association. He has been honored not alone because of his professional attainments but because of the splendid work that he has done as chairman of the legislative committee of our Association. It is fortunate that aside from acting as president he will retain his position at the head of the committee with which he has been identified so long.

HOXY, head of the National Cancer Research Institute, of the Hoxide Cancer Cure of Taylorville, Illinois, was arrested recently on the order of the state's attorney on a charge of practicing medicine without a license. We understand that this is but an advance action that will be followed by a charge of fraudulent practices. The Hoxide Cancer Cure is one that is boosted by the Chamber of Commerce of Taylorville, Illinois. It is on a par with other cancer cure fakes.

THE Christian Scientists are trying to have all reference to diseases deleted from textbooks used in the public schools. The authorities who have the power to select or reject textbooks for our schools will have their hands full if they pay attention to all of the theorists and faddists. They also would make a fine mess of things if they attempted to delete from textbooks all of the established facts that do not happen to suit the ideas of a lot of half-baked theorists and idealists of the fifty-seven varieties that abound.

ONE of the organizers of the Koch Cancer Foundation is given in the literature as being Dr. L. L. Dill, of Logansport, Indiana, a graduate of the University of Michigan homeopathic school. He styles himself as "Director of the Logansport Cancer Institute." All of the other individuals who organized the Koch Cancer Foundation have reputations and standing of similar character. A man is known by the company he keeps. Consequently it is an easy matter to place an estimate upon the Dr. Koch of would-be cancer fame.

THOSE who have had an unpleasant experience in the use of mercurochrome soluble, administered intravenously, by the Johns Hopkins method, in large doses, will find comfort in the paper by Allen, in a recent number of the *Journal of the A. M. A.*, in which he explains how he avoids undesirable reactions and still obtains satisfactory results by administering the mercurochrome in

smaller doses. Instead of 20 or 40 c.c. given intravenously he uses 2 or 3 c.c., and increases 1 c.c. each day up to 5 c.c. His results are very satisfactory.

WE do not know that many doctors have money to invest in stocks and bonds listed on the stock exchange, but if so, don't take the advice of the *Wall Street Iconoclast* which is sent broadcast to prospective investors. According to the Boston Better Business Bureau, the editor of this doubtful sheet is a promoter of national reputation and an ex-convict. He is said to have been involved in crimes of forgery, and in connection with bucket shops. Incidentally, if any doctors have money to invest, it would be wise to consult a good banker before taking the plunge.

OUR council is asking the publicity bureau of the Association to carry a campaign of education concerning individual and community health into the public schools of the state. This is a step in the right direction, for the teachers are molders of public opinion and in many instances it has been found that they are proselyting for the medical quacks and pretenders, and in those instances where teachers are Christian Scientists they are preventing the dissemination of well known and established facts concerning diseases of the human body and their prevention.

WE desire to suggest to county medical societies that they bring some pressure to bear upon Chambers of Commerce, Better Business Bureaus, and clubs like the Rotary, Kiwanis, Optimists, Lions, etc., to the end that those organizations will have active public health committees representing them to warn the public concerning notorious medical frauds. Better Business Bureaus in particular should place their stamp of disapproval upon some of the dishonest and misleading medical advertising that occurs in our daily papers. The public ought to be protected from glaring medical frauds.

BOOKLEGGING is the title given to the practice of certain persons, sometimes publishers, who buy up books of old editions and by adding a new title page with the present date thereon, market them to unsuspecting people. Some publishers and book dealers have the nerve to send these volumes to prospective buyers who have not ordered the book, and with the bill attached. It seems necessary to inspect books in order to avoid being imposed upon in this manner, though we feel sure that the large and reputable medical book publishers will not be guilty of any such crookedness as described.

IN a number of states it is possible to secure liquor on a physician's prescription. Recently the

liquor licenses of several hundred physicians have been revoked in the states of Illinois and New York in consequence of abuse of privileges granted by the licenses. Likewise the licenses of a large number of pharmacists also have been revoked for similar reasons. This is exactly as it should be, and we have no sympathy for a doctor who misuses privileges that have been granted him on legitimate grounds. We have no use for the bootlegging doctor, and the quicker he is put out of commission the better it will be for the profession as well as the public.

THE Bureau of Publicity of our Association has been doing a wonderful work, but there remains much ahead of the Bureau in the way of constructive work in advising the public to avoid fraudulent medical men. Just now there is need of a warning concerning the quacks who are preying upon young women suffering from goiter. With an increase in the number of goiter cases, or perhaps by general recognition of goiter and its symptoms, the way is paved for very profitable returns from quackery, and the public should be warned to stay away from the doctors who urge or advertise some special cure for goiter cases.

THE September number of *Our Dumb Animals*, a magazine printed in the interests of the Society for the Prevention of Cruelty to Animals, makes a pathetic story of the case of a snake that died of a broken heart because it lost its constant companion, a young Mexican youth who had made a pet of the snake. We presume that the inference is that one should make pets of snakes and never kill them. We are quite in sympathy with most of the work of the Society for the Prevention of Cruelty to Animals, but we are satisfied that some of these well meaning individuals who are sponsors for the work are allowing their sentiment to run away with them.

AT the West Baden session the question of providing for postgraduate work in Indiana, as carried out in New York and several other states, was considered but no definite action taken except to provide for the appointment of a committee to study the question and present conclusions at a future session of the Association. Fortunately, the Indiana University School of Medicine is carrying on postgraduate work in various populous communities of the state in a very efficient and commendable way, and wherever the course has been given it has been greatly appreciated. However, we feel that our Association should take charge of this work and have the assistance and co-operation of the university.

HERE in Indiana we have heard a good deal about the self-styled eye specialist, F. O. Carter.

of Chicago, Illinois, who has victimized any number of lay people under the assumption that he knew something about the treatment of eyes, and especially the correction of cross eyes. *The Journal of the A. M. A.* says that a Chicago paper under the date of June 22, 1926, calls attention to F. O. Carter and says that he has lost his license to practice in Illinois, and that the action of the board was based on testimony to the effect that Carter had caused the loss of eyes of at least eight persons who had been operated for cross eyes. Carter has been quacking it for many years, and it is well that his activities have been curbed.

THE dethroning of Jack Dempsey as king of pugilism has been seized upon by the anti-tobacco crusaders as an evidence that nicotine plays a very important role in destroying physical fitness. How idiotic! Yet fanatics seldom do stick to the truth or proven facts. Had Dempsey won, perhaps we would have heard through advertising and in other ways that his victory was due to a diet of Battle Creek breakfast foods. As a mere matter of sentiment, we note that many veterans of the late war are rejoicing because Dempsey, the slacker, was whipped. However, it is our observation that the popular idol seldom retains his position for long.

THE Harrison Narcotic law has been very annoying to the members of the medical profession, but the Lord protect us if the Smoot bill is passed and our troubles in the prescribing of narcotics are increased a hundredfold. It is all right to have stringent laws regulating the manufacture and sale of narcotics, and we are strongly in favor of severe punishment for medical men who are bootlegging narcotics, but we do not believe that a narcotic law should be so stringent that it hampers a reputable medical man in the legitimate use of narcotic drugs. If the Smoot bill is modified so that it excludes reputable physicians from the exactions prescribed in the original bill, then we have nothing more to offer in objection to the passage of the bill. However, the original bill, if passed, would work serious injury to medical profession and public alike.

A "detail man" for Schlotterbeck's, manufacturers of proprietary pharmaceuticals, has been working Indiana recently. He leaves samples of six or seven pharmaceutical specialties which have not received the approval of the Council on Pharmacy and Chemistry of the A. M. A. His excuse for not having council recognition is "Old Man Schlotterbeck does not propose to have the A. M. A. dictate to him as to how he shall manufacture and market his products." If the products are as represented, Schlotterbeck has no cause to fear any action of the Council on Pharmacy and Chemistry of the A. M. A., and when it comes to

a question of judgment we would take that of the council rather than that of Schlotterbeck. At all events, this is a plea to the members of the Indiana State Medical Association to support the council and to prescribe council approved preparations.

W. E. EICKHOFF, of Fort Wayne, is one of the nominees for congress from the Twelfth congressional district. Medical men should remember that while Eickhoff was in the Indiana legislature he openly and radically opposed almost everything for which organized medicine stands. Judging from his record in the Indiana legislature we have every reason to believe that he is the supporter of medical pretenders and quacks. If he goes to Washington he probably will continue his former policy of opposing everything for which modern medicine stands, and we believe that the medical men of the Twelfth congressional district ought to seriously consider this phase of the subject when they cast their votes at the coming election. This is not a matter of politics, but one of registering objection to a candidate for office whose record is distinctly bad from the standpoint of a medical man.

EVERY once in a while a doctor receives a notice from some individual or company offering to place the doctor's name in some register or directory that purports to give the names of the elect only. Probably in no instance has such an offer been made without the necessity of paying something in advance, either as a subscription to the directory or register, or as payment for having the name included among those with halos over their heads. Doctors will be wise if they refuse to make an advance payment in connection with any offers of that kind. If you have any aspirations to be numbered among the elect in any publication, make up your mind that you will pay no money until after you have received the service. If you are prominent enough to be rated among the elect you also are prominent enough to have sufficient credit to insure the rendering of the service before you pay any money.

RECENTLY we called attention to the practice of some mail order concerns that send out neckties, handkerchiefs, hosiery, and other merchandise on approval to people who have not placed an order or made a request for such goods. We learn that in some cases collection letters threatening suit are sent out following the mailing of the merchandise, providing the price asked for the merchandise is not remitted. Inasmuch as right at the present time Indiana doctors along with others have been receiving unordered merchandise through the mail, we desire again to warn our readers concerning the acceptance of such merchandise in the belief that it must be paid for. These schemes of merchants resorting to questionable practices in

order to sell their goods should receive no consideration of any kind whatsoever unless stamps have been sent for reply, in which case the merchandise can be returned without comment. You are under no obligation to accept unordered merchandise or even to return it at your expense.

THE death of Dr. A. W. Brayton, of Indianapolis, removes from our profession another one of the list of noteworthy men who have added to the greatness of the Indiana medical profession. As editor of the transactions of the Indiana State Medical Association, as well as editor of the old *Indiana Medical Journal*, he did a great work in recording medical history and current medical progress. He was an ardent lover of nature, and a wonderfully versatile man. The wide range of his reading was rare in a medical man. He was a teacher and leader in progressive scientific medicine, and personally, he was one of the most lovable and genial of friends.

Two lawyers, supposedly representing the Christian Scientists, recently appeared before the Indiana state board of education and asked that all reference to disease be deleted from the textbooks used in the public schools. Probably the next thing we will hear about will be that someone is asking that all reference to evolution be deleted from our school books, and if Volivia's tent were pitched in Indiana we suppose there would be an agitation to cut out of our school books all reference to the fact that the world is round. We have had fanatics in all ages, and there was a time when Christians were burned at the stake. We had supposed that we had gotten away from the idea that men and women should be penalized for telling the truth, but some incidents of the last few years seem to indicate that we still are reverting to some of the practices of the dark ages.

A MEMBER of the Indiana State Medical Association who offers a rather lame excuse for some conduct that is not only in bad taste but decidedly unethical, takes exception to the proposal to bring him before the county medical society to which he belongs for disciplining, and as an argument he volunteers the information that he is doing nothing that is not being done every day by some of the reputable medical men of Indiana. If we admit that what he says is true, how does that alter the question of propriety in disciplining refractory members, no matter whom they may be? If we are going to have a medical profession that is respected by the public and respected by the better element in the profession, it is necessary to maintain a standard of ethics and propriety that all professional men must observe. In reality we are altogether too lenient with medical men who transgress all the rules of ethics and decency.

A GLIB-TONGUED salesman has been swindling Indiana doctors by selling certificates guaranteeing a substantial reduction upon the purchase of instruments and drugs from several reliable physician's supply houses that never heard of him. Of course a plausible story is told as to why it is necessary to pay some cash down in order to get this discount which the salesman said is granted to club members only. The fellow presented no credentials, and no one seems to know anything about him, and probably never will know anything about him as he has decamped to new fields. Will doctors ever learn to investigate before they invest? A responsible banker in a doctor's home town could offer five dollar gold pieces at four dollars and the doctor would refuse to have anything to do with such an offer, but a glib-tongued fakir, recently out of Sing-Sing or any other prison, can fleece the average doctor without the slightest difficulty.

SOME of the discharged government employees, who lost their jobs through President Coolidge's efforts to cut the expenses of the government, are pointing to some of the seeming inconsistencies in the plan by publishing the news that it costs nearly a half million dollars per year to maintain the presidential yacht, and that many of the higher-ups in the government are not very keen about economy as evidenced in particular by the extravagance of one cabinet officer who had the government pay \$6,000 for a single rug for his office. We believe that the American people do not object to the expenses mentioned which go to maintain some of the most important members of our executive offices who at best are not paid salaries that are in keeping with the importance of the positions they occupy and the services rendered. The complaint offered comes with poor grace from any of the army of superfluous office holders who have been drones feeding off the government and not rendering service that is needed or in keeping with the expenditure.

FROM all newspaper reports, and judging especially from the frantic appeals made for contributions to the Red Cross, one naturally would think that Florida has been almost wiped off the map. However, some personal friends living in Miami advise us to the effect that everything concerning the Florida tornado has been grossly exaggerated, and that there is nowhere near the loss nor the suffering and discomfort occasioned by the tornado that has been represented in newspaper reports widely circulated over the United States. Some Florida residents say that while there has been some loss of life, some destruction of life, and some discomfort, a whole lot of people are taking advantage of the situation and profiting at the expense of the charity and benevolence of the people of the United States. At first

blush, things generally seem worse than they turn out to be later on. However, delays are dangerous, and it is just as well to answer appeals such as came from Florida rather than make the mistake of not offering and supplying succor at a time when it is needed.

WITH the opening of our public schools comes the danger of diphtheria and its spread to various communities throughout the state. Every child can be made immune to diphtheria through the administration of one or more doses of toxin antitoxin. From all we can learn the state board of health and the medical examiners in our public schools have not been very insistent upon this custom of immunizing children against diphtheria. In reality, we think the subject is worth serious attention, and parents should have the matter drilled into them so often that they will be willing to have the children immunized if for nothing more than to get rid of pesky notices concerning diphtheria immunization that can and should be sent out to parents by health officers, and especially by medical examiners in our schools. It is possible to go through the winter without a single case of diphtheria in our state, but of course that result only could be obtained with the co-operation of parents in having their children immunized. However, to accomplish the greatest amount of good in this direction it will be necessary for a considerable amount of activity to be shown by the medical examiners in the schools and by the school authorities.

EVERY doctor in Indiana drives an automobile and is interested in good roads. Therefore, he should be interested in having every dollar of taxes paid for good roads used for the purposes for which the taxes were intended. Automobile taxes are paid by automobile drivers, and the taxes are supposed to go into the road fund. However, every year there is a great amount of juggling of the road fund, and a great many thousand dollars, which this year it is said to run up into several hundreds of thousands of dollars, are side-tracked from the road fund to the general fund. In consequence the state is not able to carry on the amount of improvements in the road conditions that the taxes would justify if used rightfully. Good roads are a necessity for not only convenience and comfort but for the transaction of business, and it is nothing less than short-sightedness, if not a piece of dishonest juggling, that causes our state officials to use the automobile taxes for general purposes when they should be applied to the roads. If the doctors, along with everyone else owning automobiles, will put up a vigorous complaint perhaps the practice of juggling the state finances can be eliminated.

DR. ALEXANDER LAMBERT, professor of clinical medicine of Cornell University Medical College,

New York City, recommends mixed stock vaccines in the treatment of pneumonia. This recommendation is based on the treatment of a carefully controlled series of pneumonia cases in Bellevue Hospital during the four years of 1922 to 1926 inclusive. There were 221 cases of pneumonia of all types treated with the vaccines, and for purposes of comparison, 286 cases were treated with the usual treatment but without vaccine. These controlled cases were sick simultaneously in the wards. The vaccine used was a mixed stock vaccine sterilized without heat. It contained two hundred million influenza bacilli, one hundred million pneumococcus, one hundred million streptococcus, two hundred million micrococcus catarrhalis, and two hundred million each of staphylococcus aureus albus. The usual dose of this vaccine was 1.5 c. c. intramuscularly every six hours as long as the temperature was above 99°, and when the temperature fell to 99°, the dose was cut to every twelve hours for one or two doses, and then to one in twenty-four hours during convalescence. The results as shown in tables published in the *Journal of the A. M. A.*, July 3, 1926, show a distinct lowering in the mortality of all types of pneumonia as compared to the mortality of the control cases of the same type.

FROM trustworthy sources we learn that several members of the Indiana State Medical Association not only possess the worthless and discredited Abrams outfit but are advertising and using it. That is a fine recommendation for any medical society that claims to maintain in its membership only those who are playing fair with the public as well as the medical profession. We also learn from trustworthy sources that there are several members of the Indiana State Medical Association who are signing the death certificates for Christian Scientists. This is another inconsistent practice that ought to be stopped. When a death occurs in the practice of a Christian Scientist, let the coroner sign the death certificate after holding an autopsy to determine the cause of death. In order to avoid complications, most of the Christian Science healers call in a regular physician at the last moment to avoid the necessity of having a controversy over the signing of the death certificate, but even this is something that ought to be taken care of by a definite rule to the effect that if a Christian Science healer has had charge of the case, he, and he alone, is responsible for it. No medical man called in at the last moment should feel in duty bound to sign a death certificate for Christian Science healers. Let the coroner settle that matter and only after he has satisfied himself through autopsy as to the cause of death.

UNDER the cloak of legal authority many traffic officers are preying upon motorists and bleeding them for ransom money which in a large part is

profit for the traffic cop. Some of the Indiana medical men have had experience with these grafting traffic cops and got the worst of the bargain as might be expected. The Hoosier Automobile Association has been trying to put these grafting traffic officers out of commission but up to date has not succeeded very well. Indiana is not the only state afflicted, and even our neighboring state of Ohio reports that one squire, operating a notorious roadside court, collected over \$3,500 within forty days. The squire's share of this was more than \$1,600, while the three constables operating out of his office divided nearly \$1,100. Nearly every automobilist sanctions and upholds normal efforts to regulate traffic, but this grafting on the part of traffic officers is getting to be a terrible curse and should be stopped. The most effectual way of curbing this dishonesty is to pass laws to prevent squires and dishonest traffic officers from receiving any portion of the fine. Likewise if the small villages and hamlets that now are profiting by traffic fines are forbidden to receive any portion of the fine, they will not be so anxious to establish roadside courts. Until we get some such laws in Indiana it will be well for doctors to be on the lookout for the dishonest traffic cops who are getting too numerous for any semblance of comfort in automobile driving.

Aimee McPherson, the Los Angeles evangelist who is in difficulty with the authorities in connection with what is purported to be a liaison with her former radio operator, seems to have posed as a divine healer. Newspapers report that a Boston minister while visiting in Los Angeles studied the psychology of Aimee's popularity and reports that she ostensibly cured the blind in a very spectacular way and to the stimulating plaudits of an immense congregation, but upon investigation it was discovered that the so-called blind persons were not blind at all. The same minister reported that he heard Aimee say over the radio that she had preached to thousands of people in a Boston church over which the afore-said pastor presided. When Aimee's attention was called to the fact that she never had preached in that church to his knowledge, she promptly admitted that she had stated a falsehood and volunteered the promise that she never would make such a statement again. In other words, the dear Aimee used stool pigeons in her divine healing, and stooped to deliberate lying in an attempt to impress her followers with the idea that she had met with success wherever she went. It is barely possible that she will not be able to convince the courts that a stool pigeon was taking her place in the little illicit love cottage said to have been occupied by herself and the radio operator of whom she seemed to be very fond. If Aimee gets out of the scrape she now is in we suggest that she leave divine healing out of the list of her accomplishments.

WE recently have been supplied with evidence to the effect that certain medical men have been sending samples of blood to the state laboratory for free examination, and charging the patient for the examination. There is no occasion for sending blood from a pay patient to the state laboratories which are intended to furnish services to the indigent only. Blood from pay patients should be sent to trustworthy private laboratories and the customary laboratory fee should be paid. The physician seeking such examination has a perfect right to charge for his services in drawing the blood and transporting it. If he profits by the free services given by the state, and which are intended for indigent patients only, he is aiding the very commercial practices that we are trying to suppress. If he charges the patient nothing when the patient is able to pay, then he is encouraging pauperism and dependency, to say nothing of assisting in building up a feature of what eventually will turn out to be state medicine, which in the final analysis will work to the doctor's disadvantage. Frankly, we don't believe that the state has any business in running a laboratory in the way that the state laboratory is run at the present time. We hold no brief for the private laboratories, but we do say that the state has no justifiable right to enter into competition with private practitioners of medicine, nor does it have any moral right to encourage dependency and pauperism which must be paid for by taxation upon the public generally.

NEARLY every doctor admits that the treatment of quinsy or peritonsillar abscess is a disappointing experience, especially if the patient presents himself early in the progress of the disease. Not only does the patient suffer intensely, but in many cases there are complications and even death. Early incision does not seem to do anything more than torture the patient, and he suffers extremely for four or five days, or until an incision evacuates pus and then relief is secured, but with the advice on the part of the doctor that as soon as the active inflammation subsides the tonsils should be removed. Now comes a Denver specialist, H. O. Baum, who advocates the radical cure of quinsy by enucleation of the tonsils early in the progress of the quinsy, and he reports that it not only is a radical cure for the quinsy but that it accomplishes another purpose in that it removes the offending organism. Concluding his article, which appears in the June number of the *Annals of Otolaryngology and Rhinology*, Dr. Baum says that he is convinced from anatomic and pathologic study as well as clinical observation, that pus is present in quinsy long before it can be evacuated in the customary way. Tonsillectomy evacuates this pus and provides adequate drainage of the infected area. By the time the pus is formed, local infiltration and systemic immunity makes tonsillectomy for drainage quicker than

futile incision or waiting. The operation gives immediate relief from suffering and at the same time performs the additional service of removing the offending tonsils.

How to prevent patients from unnecessarily taking the doctor's time at inconvenient hours seems to be a problem with many physicians. One medical man of our acquaintance has solved the problem by charging double when the service demanded is purely an imposition upon the doctor. He carefully discriminates between the emergency cases and those that are flagrant abuses of his calling. One of his patients, a very prominent business man, insisted upon making a Sunday morning appointment for an examination that could just as well have been made on a week day, and during regular office hours. The plea made was that the patient's business was of so much importance that he could not leave it during the week and that he, of necessity, had to see a doctor on Sunday. It so happened that the patient was not so busy at his usual vocation but that he could spend a whole day at automobile races, and when the Sunday appointment came a double fee was charged. When the patient complained, the reasons for it were pointed out. The patient paid the fee gracefully, and ever after has shown a decent regard for the doctor's office hours. Just as long as doctors are willing to be imposed upon they will find plenty of people who will impose upon them. There are altogether too many doctors who do not get along well because they do not systematize their work. Doctors, like everyone else, should be fair and reasonably accommodating, but there is no reason why they should be the victims of gross impositions, and they lose nothing by living up to certain rules governing hours of service, and, in fact, gain greater respect on the part of their patients when they do so.

FULLY one-half of our mail is composed of circulars and advertising matter which goes into the waste basket with only a superficial glance to determine its character. What a waste of money for material, labor, and postage! Much of our mail includes circulars and begging letters from uplift organizations of various kinds. These organizations are formed without rhyme nor reason. Many of them are started in order to give jobs to secretaries and other workers, while others are intended to put in the limelight some childless woman who knows little about home-making, and not only has to have a place to get rid of some of her energy and enthusiasm but has a desire to shine in the limelight. Usually, she hasn't the brains of a chickadee, but if she can find enough hare-brained people to listen to her she succeeds in accomplishing her purpose of putting herself forward as a great uplifter in helping what she thinks is suffering humanity waiting for her

ministrations. Usually, she possesses as much consistency as the woman who would like to put pink pajamas on the South Sea islanders, but for some reason or other she never learns that she belongs to the class that Bill Nye rightfully dubs "The Society of Pale Blue Asses." Just now we are asked to join a society, the purpose of which is to study the psychology of the school child. Is there a membership fee? Oh, yes! They never omit that. In fact, it is our candid belief that the membership fee is the principal reason for the formation of the society. Probably it would be an uninteresting world if we did not have a lot of these faddy uplifters to add to our interest in human brain contortions.

THE more we analyze the subject the more we approve the idea that our Association should not hold an annual session in any city or town that does not offer ample facilities for caring for the Association's activities in a very satisfactory manner. This means that we must have at least three well-lighted, well-ventilated and quiet audience rooms for the meetings of the sections and the House of Delegates. These rooms should be centrally located and easy of access. Then there should be ample facilities for housing the commercial exhibit, which has grown to be a feature of every session and one that is appreciated by every member of the Association. Incidentally, the income from this feature helps very materially in paying some of the expenses of our annual session. It would be better if all of the activities of the Association could be placed under one roof, but when this is not possible it is the height of folly to string them out over a wide area, and it certainly is an injustice to the Association to have inadequate quarters for any of its activities. We may be treading on the toes of some of the members of the Association who are anxious to have a medical convention in their own locality, but we believe that we are justified in saying that no city or town should ask for the convention unless it can be proved to the satisfaction of the executive secretary and officers of the Association that the facilities are ample and entirely satisfactory from every point of view and, last but not least, it is a question of hotel accommodations. If there is anything that arouses the ire of those who attend the annual sessions, it is to find it necessary to chase around a town, perhaps at night, in order to get a bed in which to sleep. It will not do to say that the committee on arrangements has provided accommodations at boarding houses and private residences. No one wants that kind of accommodations when he expects to be free to go and come as he pleases, and to have quarters to his liking.

THE Eyesight Survey and Service Corporation, with headquarters at Rochester, New York, is an enterprise that is asking for the endorsement of

medical men and the patronage of various industrial and commercial concerns. It originates and is promoted by optometrists, and so far as we can see is for commercial gain, directly or indirectly. It purports to give a complete and continuous eyesight survey covering visual correction and illumination. Its principal object is frankly admitted to be to discover and correct defective vision as affecting approximately one-half of all industrial workers. An amusing statement in the circular is that the service offers for the first time "a complete eye examination by the best specialists, trained according to our standardized methods." After assuring the manufacturers that the highest professional service will be supplied, and that there will be a complete separation of the professional and commercial phases of the work, the further contradictory announcement is made that the furnishing of corrective glasses will be handled completely by their service department. Could anything be sweeter than this arrangement? An amusing feature in connection with the circulars, particularly when they are received by a medical man, is the request that the receiver shall enroll in a course of instruction that is offered by the optometrists at a cost of \$60. If you haven't the money to pay for the course in cash you can give your note, and to help you, blank notes are inclosed with the circulars. Well, perhaps all of these commercial schemes get a foot-hold because the medical profession has been slow in doing its duty. Visual tests and the correction of refractive errors in the eyes of employees in industry are needed, but the work should be done by the medical profession. With our usual apathy toward progressive ideas of this kind we are permitting the optometrists to attempt the work, and while they perhaps accomplish a great deal of good we are satisfied that the service would be much more trustworthy and satisfactory if done by members of the medical profession, and certainly it would be devoid of commercialism.

THE October number of *The Delineator* contains a well written and instructive article by the noted obstetrician, Dr. Joseph B. DeLee, entitled "Before the Baby Comes." It conveys much information that should be conveyed to mothers and expectant mothers, as well as nurses and others who in any way are concerned with child-birth and the rearing of children. However, Dr. DeLee's article has brought forth much criticism from many members of the medical profession concerning the propriety of advertising the author, as it does, through announcement of his various titles, the names of famous patients like Mrs. Nicholas Longworth, and the offer by *The Delineator* to send anyone, on receipt of ten cents to cover cost of printing and mailing, a booklet for mothers written by him.

In analyzing this subject we are forced to admit that such articles as those prepared by Dr. DeLee are very useful as a part of our efforts to educate the public in matters pertaining to individual and community health, and it is fortunate that men of his standing and ability will take the time and trouble to prepare such an article as recently appeared in *The Delineator*. However, we are stimulated to put the query, would Dr. DeLee be so solicitous for the welfare of mothers, expectant mothers, and children if he did not receive the advertising that he does in connection with his articles? In other words, if it were announced by *The Delineator* that this article had been prepared by one of the nation's foremost obstetricians, with name omitted, and published under the authority of the American Medical Association, we wonder if Dr. DeLee could have been persuaded to write the article? We would not for a moment have it understood that we are condemning the splendid work that is being done in connection with medical publicity for the education of the people of this great country, but we do feel that while it may not be exactly unethical to place one's self in the position of advertising himself as a great practitioner of medicine, it certainly is in exceedingly bad taste to do so, and is thoroughly unwarranted in view of the fact that the results could be accomplished by having the same article published under the authority of the American Medical Association, without advertising the writer. In the smaller cities and towns much criticism is directed toward local doctors who receive, sought or unsought, eulogistic publicity in the newspapers concerning their work, but why should they be criticized when the really great men in our medical profession do the same thing or worse? If we are going to have any rules of ethics, propriety and decency, they must apply to the big men in our profession as well as to the little ones. We need the assistance of the leaders in our profession in this new work of medical publicity, and they should be free to give of their services, but those services obviously should not be tainted with a tinge of self-exploitation.

DEATHS

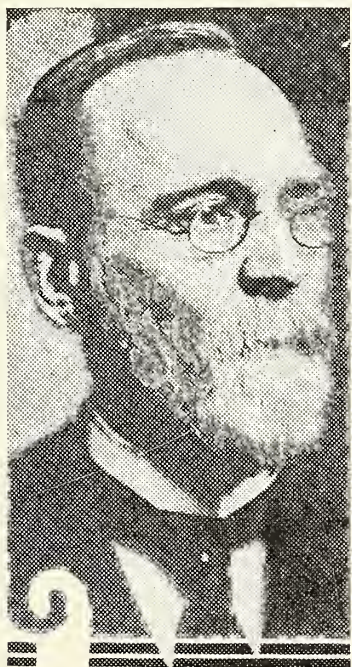
JOHN J. C. ROSS, M. D., of Bloomington, died August 19, aged sixty-eight years. Dr. Ross graduated from the Cincinnati College of Medicine and Surgery in 1885.

ANDREW J. CLARK, M. D., of Indianapolis, died August 27, aged seventy-six years. Doctor Clark graduated from the Kentucky School of Medicine, Louisville, in 1880.

THOMAS J. O'BRIEN, M. D., of Clayton, died September 6, aged fifty-two years. Doctor O'Brien was a member of the Hendricks County Medical Society, the Indiana State Medical Association and a Fellow of the American Medical Association. He graduated from the Kentucky School of Medicine, Louisville, in 1893.

A. W. BRAYTON, M. D., of Indianapolis, died at St. Vincent's hospital in that city September 21, aged seventy-eight years. His death followed complications resulting from a fall at his home ten days previously.

Dr. Brayton was born at Avon, N. Y., March 4, 1848. He graduated from the Chicago Normal school in 1869, and attended Cornell university in 1871 and 1872. He graduated from Butler uni-



versity with a B. S. degree in 1878, and received the degree of master of science at that school in 1880. He received his M. D. degree from the Indiana Medical College, and his M. S. degree from Indiana University in 1882, and the Ph. D. degree at Purdue university in 1885. Dr. Brayton devoted much of his time to the study of the treatment of skin diseases. He was professor of dermatology and syphilology at the Indiana University School of Medicine, Indianapolis, at the time of his death, and was a member of the American Dermatological Association. Dr. Brayton was president of the Indiana State Medical Association in 1902, and editor of the *Indiana Medical Journal* for many years.

In addition to his active work in the medical profession Dr. Brayton was the author of several nature study books, among which are "Birds of Indiana," written in 1885; "Mammals of Ohio," written in 1886; and he was joint author with David Starr Jordan of a work entitled "Fishes of the Southern Allegheny Region."

F. G. GRISIER, M. D., of Columbia City, died July 24, aged seventy-three years. Doctor Grisier graduated from the Western Reserve University School of Medicine, Cleveland, Ohio, in 1875. He was a member of the Whitley County Medical Society, the Indiana State Medical Association and the American Medical Association.

MILTON C. HAWORTH, M. D., Noblesville, died September 16, following a long illness caused by an injury. Dr. Haworth was seventy-six years of age. He was a member of the Hamilton County Medical Society, the Indiana State Medical Association and the American Medical Association. He graduated from Indiana Medical College, Indianapolis, in 1877.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

DR. D. A. BETHEA has moved from Muncie to 1745 Broadway, Gary, Indiana.

THE Michigan State Medical Society held its annual meeting at Lansing, September 14, 15 and 16.

THE Huntington County Medical Society held a meeting September 9th. Dr. Charles H. Good presented a paper.

DR. W. T. LAWSON, secretary of the Hendricks County Medical Society, is nominee for the position of county coroner.

DR. ERIC CRULL, of Fort Wayne, addressed a dinner meeting of the Lagrange County Chamber of Commerce September 10th.

HARRY A. VAN OSDOL, M. D., has announced the removal of his office to 828 Chamber of Commerce building, Indianapolis, Indiana.

DR. HOMER C. HASS, of Peru, has gone to Los Angeles, California, to make his home. Dr. Haas was a member of the state board of health.

DR. C. C. HICKMAN, of Logansport, was awarded the Eli Lilly doctor's trophy in a contest of Indiana marksmen at Indianapolis recently.

DR. CLEON NAFE has resigned his position as superintendent of the Indianapolis City hospital and has entered the private practice of medicine.

DR. AND MRS. CHARLES H. EMERY and daughter, Miss Florence Emery, of Bedford, Indiana, have returned from a tour around the world.

THE meeting of the Ohio Valley Medical Association will be held at Louisville, Kentucky, on November 10th and 11th, with headquarters at the Brown hotel.

DR. AND MRS. C. M. EISENBEISS, of South Bend, have returned from a three years' trip in various parts of the country. The trip was taken for the benefit of Dr. Eisenbeiss' health.

DR. C. NORMAN HOWARD, of Warsaw, attended the session of the American Academy of Ophthalmology and Otolaryngology recently held at Colorado Springs, where he presented a paper.

THE clinical congress on physical therapy will be held in conjunction with the fifth annual meeting of the American College of Physical Therapy at the Drake hotel, Chicago, October 18 to 23, 1926.

DR. ARTHUR C. ECHTERNACHT has been secured for full time service as roentgenologist for the Indianapolis Methodist hospital. This hospital recently has purchased 110 mgms. of genuine radium element under the United States government seal.

DR. DONALD E. BELL has resigned his position as physician in the Indiana Village for Epileptics and as secretary of the Henry County Medical Society, and has moved to Indianapolis where he will be resident physician in eye, ear, nose and throat at the Indianapolis City hospital.

THE clinical and research laboratory at Sunnyside sanatorium, made possible by a grant of \$20,000 by the Indianapolis foundation last February, has been equipped and is functioning. Clinical laboratory work has been carried on for several weeks, and research work will be commenced in the near future.

THE Whitley County Medical and Dental Societies held a meeting at the city hall, Columbia City, August 3. Dr. Charles G. Beall, Fort Wayne, presented a paper on "Cough." Victor Hilgeman, D. D. S., Fort Wayne, presented a

paper on "Tic Douloureux;" Dr. Garrette Van Sweringen, Fort Wayne, reported some cases of pulmonary abscess.

THE United States civil service commission announces open competitive examination for physiotherapy aide and physiotherapy assistant. Applications must be on file at Washington, D. C., not later than November 27, 1926. Applicants should at once apply for Form 2415, stating title of examination desired, to the civil service commission, Washington, D. C.

SUNNYSIDE SANATORIUM, Marion county's tuberculosis hospital, has begun constructive work of some new units, consisting of a two-story infirmary building, planned to care for forty patients, a second story on the old infirmary building, a nurse's home, and a medical unit. The medical unit will contain a sterilizing and operating room, the x-ray department, dentist's office and doctors' examining rooms.

SIXTY-FIVE persons were present at the July meeting of the Grant County Medical Society, held at Swayzee, Indiana. Following a chicken dinner, a business session was held, including papers by Dr. V. P. Hawkins, of Swayzee; Dr. O. L. Stout, of Upland; Dr. L. D. Holliday, of Fairmount; Dr. C. R. Brown, of Marion; Dr. F. W. Tavenner, of Gas City, and Dr. E. O. Harrold, of Marion, president of the society.

AT the completion of its recent European study tour, the Travel Study Club of American Physicians elected Dr. Fred H. Albee, of New York, as president; Drs. Edward B. Heckel, of Pittsburgh, and John P. Lord, of Omaha, as vice-presidents, and Dr. Richard Kovacs, of New York, as secretary. Plans are being made for the next study trip to include the Central European countries, Germany, Austria, Czechoslovakia, Hungary and Italy.

THE United States civil service commission announces open competitive examinations for junior medical officer, assistant medical officer, associate medical officer, medical officer and senior medical officer. Applications will be rated as received at Washington, D. C., until December 30, 1926. There is especial need for medical officers qualified in tuberculosis or neuropsychiatry. Applicants should apply for Form 2118 (or 2600) and 2398, stating title of examination desired, to the United States Civil Service Commission, Washington, D. C.

THE department of commerce announces that reports of automobile fatalities for the four-week period ending September 11 have been received from seventy-eight large cities in the United

States. The total number of such fatalities in these cities was 560 as compared with 521 for the corresponding four weeks of 1925, and the daily averages for the two four-week periods were 17.9 and 16.6 respectively. Five cities showed no automobile fatalities for the last four weeks, while nine cities showed no fatalities for the corresponding period of 1925.

THE Fort Wayne Medical Society gave a dinner in honor of Dr. Miles F. Porter, Sr., for his seventieth birthday anniversary, on Tuesday, September 28th, at the Shrine Temple, Fort Wayne. There were about two hundred guests present. Speakers included Dr. Charles P. Emerson, of Indianapolis; Dr. Franklin Martin, of Chicago; Dr. Allen Craig, of Chicago; Dr. John H. Oliver, of Indianapolis; Dr. Edmund Clark, of Indianapolis, and Dr. Kent K. Wheelock, of Fort Wayne. A large floral offering was sent by Dr. Porter's medical friends in South Bend.

IN addition to the articles already enumerated the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

The Gilliland Laboratories, Inc.:

Antistreptococcic Serum 20 cc.

Lederle Antitoxin Laboratories:

Poison Oak Extract-Lederle (In Almond Oil).

Poison Oak Extract-Lederle (In Almond Oil) 1 cc.

Lehn & Fink, Inc.:

Pituitary Substance-L. & F. Desiccated.

Tablets Pituitary Substance-L. & F. Desiccated, 1/2 grain.

Anterior Pituitary-L. & F. Desiccated.

Tablets Anterior Pituitary-L. & F. Desiccated, 1 grain.

Posterior Pituitary-L. & F. Desiccated.

Tablets Posterior Pituitary-L. & F. Desiccated, 1/10 grain.

Eli Lilly & Company:

Diphtheria Antitoxin, Purified, Concentrated-Lilly.

H. K. Mulford Company:

Ivyol.

Hypo Units Ivyol 0.7 cc.

E. R. Squibb & Sons:

Erysipelas Streptococcus Antitoxin Concentrated—Squibb 15 cc.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION

Minutes of the Annual Session Held in West Baden, September 22, 23 and 24, 1926.

HOUSE OF DELEGATES

The House of Delegates of the Indiana State Medical Association held its first session at 2 p. m., September 22, 1926, the president, Dr. C. N. Combs, of Terre Haute, presiding.

Roll call showed a quorum present.

The minutes of the previous meeting were read by the executive secretary, Mr. Thomas A. Hendricks, and approved as read.

As a special order of business the chairman presented Dr. G. W. H. Kemper, of Muncie, the oldest ex-president of the Association.

The following reports were approved as printed in the September number of THE JOURNAL:

Report of executive secretary.

Report of treasurer.

Report of chairman of council.

Report of committee on credentials.

Report of committee on administration and medical defense.

Report of bureau of publicity.

Report of committee on medical education.

Report of committee on hospital standardization.

Report of committee on public policy and legislation.

Report of committee on scientific work.

Report of committee on necrology.

Report of committee on industrial and civic relations.

No report from delegates to the A. M. A.

No report from committee on arrangements.

The executive secretary read a communication from the American Medical Association relative to immediate medical relief in case of disasters, pending the time when the Red Cross is able to reach the field. Moved by Dr. W. R. Davidson that this House of Delegates endorse the plan of the A. M. A. whereby county medical societies automatically take charge of relief work in case of disasters. Motion seconded and carried.

The executive secretary read a communication from the Illinois State Medical Society relative to the admission of expert testimony of alienists in cases of a criminal character. Moved by Dr. V. H. Moon that this Association endorse the resolution passed by the American Medical Association at the Dallas session concerning this question. Motion seconded and carried.

The executive secretary read a communication from the Louisiana State Medical Association regarding the provisions of the Harrison act covering the manufacture and distribution of heroin. No action taken.

The executive secretary read a communication from the Louisiana State Medical Association, also a similar communication from the South Dakota Medical Association, regarding the recent action of the American Public Health Association favoring the creation of a doctor of public health who need not have full medical training. Moved by Dr. A. E. Bulson, Jr., that the Indiana State Medical Association endorse the action of these two medical associations in disapproving of the resolution passed by the American Public Health Association and condemning the plan to create a doctor of public health who may not have taken full medical training. Motion seconded by Dr. Stoltz and carried.

MEMORIALS AND RESOLUTIONS

Moved by Dr. A. E. Bulson, Jr., that the chairman appoint a reference committee to which resolutions shall be referred, this committee to report at the Friday morning session of the House of Delegates. Motion seconded and carried.

Dr. C. H. Good, Huntington, presented the following resolution:

"Resolved, That the Indiana State Medical Association shall inaugurate a state-wide campaign of education having for its purpose the acquainting of the people of Indiana with the value and importance of immunization and protection of children against diphtheria—children of both school age and pre-school age.

"An educational campaign of this kind should have the earnest and active co-operation and support of the medical profession, and each individual practitioner should use every opportunity to explain to parents the simplicity, harmlessness, and efficiency of toxin-antitoxin immunization as a protection against this dangerous and destructive disease. To this end the Indiana State Medical Association should appoint a committee of physicians to co-operate with the state health department,

State Parent-Teacher Association, county medical societies, local welfare organizations, and local health officials in an effort to secure the widest possible use of this protective measure in the prevention and control of diphtheria in the state of Indiana." (Adopted at Friday's meeting.)

Dr. F. W. Gregor, Indianapolis, presented the following resolutions:

Resolution No. 1—

"Whereas, There is now pending in the national congress a bill, H. R. 7555, AN ACT TO AUTHORIZE FOR THE FISCAL YEARS ENDING JUNE 30TH, 1928, AND JUNE 30TH, 1929, APPROPRIATION FOR CARRYING OUT THE PROVISION OF AN ACT ENTITLED 'AN ACT FOR THE PROMOTION OF THE WELFARE AND HYGIENE OF MATERNITY AND INFANCY AND FOR OTHER PURPOSES,' approved November 23rd, 1921, the purpose of this act being to prolong the life of the Shepherd-Towner law; and

"Whereas, the operation of the Shepherd-Towner law has not shown public health benefits greater than might reasonably be expected for activities already in operation; and

"Whereas, we believe that such public health activities should be engaged in by the individual states, and federal interference to be pernicious and bad; therefore

"Be it Resolved by the House of Delegates of the Indiana State Medical Association, that we disapprove of such legislation as is embodied in bill H. R. 7555, and urge our United States senators and representatives in the national congress from Indiana to resist in so far as is within their power the adoption of this legislation; and

"Be it Further Resolved, that the executive secretary be instructed to forward copies of this resolution to the United States senators and representatives from Indiana." (Adopted at Friday's meeting.)

Resolution No. 2—

"Whereas, there is now pending in the national congress a bill, H. R. 11612, to amend an act entitled 'AN ACT TO PROVIDE FOR REGISTRATION WITH THE COLLECTOR OF INTERNAL REVENUE AND TO IMPOSE A SPECIAL TAX UPON ALL PERSONS WHO PRODUCE, IMPORT, MANUFACTURE, COMPOUND, DEAL IN, DISPENSE, SELL, DISTRIBUTE OR GIVE AWAY OPIUM OR COCOA LEAVES, THEIR SALTS, DERIVATIVES OR PREPARATIONS OR FOR OTHER PURPOSES' as amended; and

"Whereas, the adoption of this legislation, increasing the restrictions in the way of registration, special taxes and reports, and, in fact, prohibiting the prescribing of narcotics except under conditions which would work an untold hardship on the profession, is unjust and unnecessary; therefore

"Be it Resolved by the House of Delegates of the Indiana State Medical Association that it is unalterably opposed to the adoption of this legislation; and

"Be it Further Resolved, that the senators and representatives from Indiana in the national congress be urged to use their influence to defeat this legislation; and

"Be it Further Resolved, that the executive secretary be instructed to forward copies of this resolution to the senators and representatives in the national congress from Indiana." (Adopted at Friday's meeting.)

Resolution No. 3—

"Whereas, there is now pending in the national congress a bill, S. 2320, 'AN ACT TO SAFEGUARD THE DISTRIBUTION AND SALE OF CERTAIN DANGEROUS CAUSTICS OR CORROSIVE ACIDS, ALKALIS, AND OTHER SUBSTANCES IN INTERSTATE AND FOREIGN COMMERCE' commonly known as the 'FEDERAL LYE BILL'; and

"Whereas it is necessary to adopt a federal statute to cover interstate and foreign commerce; and

"Whereas, this legislation is designed to protect the health and lives of innocent children; therefore

"Be it Resolved by the House of Delegates of the

Indiana State Medical Association, that it commends the action of the United States senators from Indiana in assisting in the passing of this bill through the United States senate, and urges that the representatives from Indiana support this legislation in the house of representatives; and

"Be it Further Resolved, that the executive secretary be instructed to send a copy of this resolution to the senators and representatives in the national congress from Indiana." (Adopted at Friday's meeting.)

Resolution No. 4—

"Whereas, there is now pending in the national congress a bill, H. R. 9055, 'AN ACT TO REGULATE THE PRACTICE OF CHIROPRACTIC; TO CREATE A BOARD OF CHIROPRACTIC EXAMINERS FOR THE DISTRICT OF COLUMBIA AND TO PUNISH PERSONS VIOLATING THE PROVISIONS THEREOF'; and

"Whereas, the people of the District of Columbia must depend upon legislative relief from the national congress; and

"Whereas, there already exists a good and efficient statute governing the acts of all those who would assume the obligation of treating the sick in the District of Columbia; and

"Whereas, this bill, H. R. 9055, is special legislation of the rankest character and designed to legalize quackery, making no ample provision for qualifications in basic sciences for those who would assume the important obligation of diagnosing and treating human diseases; therefore

"Be it Resolved, by the House of Delegates of the Indiana State Medical Association that it condemns in the strongest terms this effort to adopt special legislation and destroy the educational qualifications which a state should require of an applicant before licensing him to engage in the occupation of treating the sick; and

"Be it Further Resolved, that the senators and representatives in the national congress from Indiana are hereby urged to study carefully this important question and resist at every turn its adoption; and

"Be it Further Resolved, that the executive secretary be instructed to forward copies of this resolution to the members of the national congress from Indiana." (Adopted at Friday's meeting.)

Dr. E. M. Shanklin, Hammond, presented the following resolution:

"Resolved, that the Indiana State Medical Association goes on record as favoring state legislation limiting the continuous hours of employment of female labor." (Adopted at Friday's meeting.)

Dr. H. C. Wadsworth, Washington, presented the following resolution:

"Be it Resolved, that the Indiana State Medical Association believes that state hospitals serving the people of the state, as is done by the Robert W. Long hospital and the Riley Memorial hospital, should not receive the private patients of the members of its staff at any time or under any circumstances." (Laid on the table at Friday's meeting.)

The above resolutions were turned over to the reference committee appointed by the chairman, consisting of A. E. Bulson, Jr., F. A. Dennis, C. Norman Howard.

Moved by Dr. A. E. Bulson, Jr., that the secretary be instructed to send a telegram of condolence to the family of Dr. A. W. Brayton, who died September 21st. Motion seconded and carried

REPORTS OF SPECIAL COMMITTEES

Dr. A. L. Marshall reported for the committee appointed to incorporate the Association, that this had been done about fifty-one years ago, and the Association was still operating under the constitution and by-laws filed at that time. The committee filed the necessary papers, changing the name of the organization from "Indiana State Medical Society" to "Indiana State Medical Association," and recommended that when the constitution and by-laws are amended a copy be filed

with the secretary of state. This report was accepted and the committee discharged.

UNFINISHED BUSINESS

Dr. W. R. Davidson, Evansville, presented the following amendment to the by-laws, Chapter VIII, Sec. 9.

"Sec. 9. A committee on budget shall consist of the officers, the retiring president and the chairman of the council. The duty of this committee shall be to prepare a budget for the ensuing year, and all expenditures of the Association except those otherwise provided for by the constitution and by-laws, shall be governed by this budget. No expense not provided for in the budget shall be incurred by any officer or committee. A committee or an officer may submit a request for unusual expenses, which request may be granted by two-thirds vote of the budget committee."

This amendment was laid over until the Friday morning session. (Adopted later on at same meeting.)

Moved by Dr. A. E. Bulson, Jr., that the constitution and by-laws as printed in *THE JOURNAL* be adopted as a whole, it being understood that amendments may be made at any session. Motion seconded.

Dr. Floyd Romberger, Lafayette, moved to amend Dr. Bulson's motion—that the constitution and by-laws as printed in *THE JOURNAL* and handbook be adopted, with the exception of the change which was acted on favorably last year, creating the office of president-elect.

Vote on the amendment carried. Vote on the original motion carried.

Dr. F. W. Cregor suggested that in the list of committees named in the by-laws the name of the committee on legislation be changed to the committee on public policy and legislation.

Moved by Dr. A. E. Bulson, Jr., that the amendment offered by Dr. Davidson, together with the suggestion offered by Dr. Cregor, be adopted. Motion seconded and carried.

Moved by Dr. M. R. Combs that Chapter VII, Section 12 of the by-laws be changed to read "may" instead of "shall." Motion seconded, but lost.

The question of employing an attorney for the Association was considered, Dr. Cregor suggesting that a small retainer, say \$200.00, be paid to a young attorney who might be interested in this work; any actual service to be paid for in addition. On motion of Dr. C. Norman Howard, duly seconded, this suggestion was adopted.

The chairman read a resolution (carried over from last year) from the Daviess-Martin Society concerning the Riley Memorial hospital. This was turned over to the reference committee

NEW BUSINESS

The executive secretary presented the suggestions of the council regarding post-graduate study, the council recommending that the question of post-graduate study as conducted by the other states be considered by the House of Delegates, and that a committee be appointed to consider the matter.

Moved by Dr. F. S. Crockett, Lafayette, that the chairman appoint a committee to study the problem as outlined by the secretary, this committee to report to the council at a later time when they have the necessary information. Motion seconded.

Moved by Dr. C. Norman Howard to amend Dr. Crockett's motion, adding that the committee be empowered to proceed along constructive lines that will result in securing a feasible plan for obtaining the best possible post-graduate work. Amended motion carried.

The chairman appointed on this committee Frank E. Sayers, Terre Haute; F. S. Crockett, Lafayette; A. M. Hayden, Evansville.

No further business appearing, the House of Delegates adjourned until Friday morning at 7 o'clock.

FRIDAY MORNING MEETING

West Baden Session, September, 1926.

The House of Delegates convened for its second session at 7 o'clock Friday morning, the president, Dr. C. N. Combs, presiding.

Roll call showed a quorum present.

The minutes of the previous meeting were read and approved.

Election of officers resulted as follows:

President—Frank W. Cregor, Indianapolis.

President-Elect—George R. Daniels, Marion.

Treasurer—William Doeppers, Indianapolis.

Delegates to A. M. A.—Harry Elliott, Brazil; David Ross, Indianapolis.

Alternate Delegates to A. M. A.—William H. Kennedy, Indianapolis; F. S. Crockett, Lafayette.

Delegate to Fill Unexpired Term of Dr. George F. Keiper—E. M. Shanklin, Hammond.

Councilors—First district, W. R. Davidson, Evansville; Fourth district, C. E. Gillespie, Seymour; Seventh district, election to be held; Tenth district, election to be held; Thirteenth district, election to be held.

Place of Meeting for 1927—Indianapolis.

The reference committee reported favorably on the resolutions offered by Dr. F. W. Cregor, by Dr. E. M. Shanklin, and by Dr. C. H. Good. On motion of Dr. A. E. Bulson, Jr., duly seconded, these resolutions were adopted.

Regarding the resolutions presented by the Daviess-Martin Medical Society—one held over from last year and one read Wednesday afternoon by Dr. Wadsworth—the committee asked for free discussion of this question by the parties to both sides. Following such discussion the committee offered the following resolution:

"The House of Delegates of the Indiana State Medical Association recommends that the physicians of the state acquaint themselves more accurately with the exact procedure of entering patients in the charitable hospitals of the state.

"It is also recommended that they render all assistance possible to the township trustee and to the judge who passes upon these cases.

"It is the spirit of this recommendation to promote the idea that only those patients be entered in the state institution who cannot obtain adequate attention in their own locality."

Moved by Dr. A. E. Bulson, Jr., that this resolution be adopted. Motion second by Dr. H. C. Wadsworth.

After further discussion it was moved by Dr. C. H. Good that this resolution be tabled for one year. Motion seconded by Dr. Charles Stoltz, and carried.

On motion, duly seconded, a vote of thanks was extended to the West Baden Springs hotel management, and especially to Dr. C. W. Dowden, as well as to the Orange County Medical Society, for the entertainment furnished, and the many courtesies extended to the members of the Association during this session.

Moved by Dr. A. E. Bulson, Jr., that a vote of thanks be extended to Thomas A. Hendricks for the splendid manner in which he has carried on the work of the secretary's office during the past year, and to Dr. Charles N. Combs for his efficiency as president, as well as for his services as secretary in former years. Motion seconded and carried by rising vote.

No further business appearing, the House of Delegates adjourned in memory of Drs. Jonas Stewart, George F. Keiper, and A. W. Brayton, ex-presidents who have passed away in the past year.

THOMAS A. HENDRICKS,
Executive Secretary.

THE COUNCIL

FIRST MEETING

West Baden Session, September, 1926.

The Council convened at 12:30 p. m., Wednesday, September 22, 1926, at the West Baden Springs hotel (convention headquarters), West Baden, Indiana, at a dinner meeting. The meeting was called to order by Dr. W. R. Davidson, Evansville, chairman of the Council, showed the following present: W. R. Davidson, Evansville; Joseph Smadel, Vincennes; Walter Leach, New Albany; C. E. Gillespie, Seymour; Joseph H. Weinstein, Terre Haute; E. C. Denny, Milton; O. T. Scamahorn,

Pittsboro; M. A. Austin, Anderson; F. S. Crockett, Lafayette; C. S. Black, Warren; B. Van Sweringen, Fort Wayne; C. Norman Howard, Warsaw; Charles N. Combs, president, Terre Haute; Albert E. Bulson, Jr., Fort Wayne, editor of *THE JOURNAL*, and Thomas A. Hendricks, executive secretary. Every district was represented except the Tenth.

The minutes of the midwinter meeting of the Council held Tuesday, December 29, 1925, at the Severin hotel, Indianapolis, were read and approved.

Each councilor made a short report for his own district.

Report of the research committee of the Indiana High School Athletic Association were distributed to each member of the Council. Report of the committee on patients' and physicians' certificates of the Indiana High School Athletic Association was read before the Council. The Council complimented the committees concerning the thorough manner in which the field was covered in the reports of each of these committees, and re-asserted its desire to co-operate with the Indiana High School Athletic Association in this work.

Suggestions concerning the establishment of post-graduate work by the Indiana State Medical Association were considered, the secretary presenting answers to a questionnaire sent to the various state associations in regard to post-graduate work. Following a discussion the Council moved to refer the matter to the House of Delegates.

Dr. Denny, councilor for the Sixth district, suggested that the publicity bureau pay special attention to carrying a campaign of publicity work into the public schools of the state. The Council commented favorably upon Dr. Denny's suggestion and instructed the secretary to present these suggestions to the publicity bureau.

The bulletin of the Indiana state health council, published by the extension division of Indiana university, was presented to each member of the Council. Each member was asked to give special attention to the report made by the publicity bureau of the Indiana State Medical Association, pages 35 to 38. This report gives briefly the history of the founding of the Indiana State Medical Association, the various lines of activity in which the Association engages, and the purpose of the organization.

A letter was read from Illinois requesting Indiana's attitude in regard to testimony of expert alienists in questions of criminal nature. The matter was referred to the House of Delegates.

The following letter from Olin West, M. D., secretary of the American Medical Association, was read:

"Our Council on medical education and hospitals is checking up, through local physicians, on the matter of hospitals in individual counties. In reply to a questionnaire sent to a physician in Warren county, Indiana, the following statement has been submitted:

"Medical societies. Members are not as a class ethical. Professionally are at outs. Dog eat dog. Consultations unknown, fee-splitting frequently practiced."

"I am passing this information on to you for any action that you may feel is indicated under the circumstances. I have not given the name of the physician who made the statement for the reason that he was asked for information concerning hospitals and volunteered other information. This is sent on to you for what it may be worth. Of course, if the situation in Warren county is as bad as he makes it appear, the Council of the Indiana State Medical Association may wish to look into matters."

Dr. Frank S. Crockett, councilor for the Ninth district, reported upon the situation saying that he had written to the physicians of the Warren County Society asking them concerning the truth of these reports. He said he received several letters from Warren county doctors which threw some very interesting light upon this matter and indicated that one physician's report should not be accepted as giving the true status of affairs in Warren county.

The secretary made a financial report of the exhibitors

showing that there were forty-eight booths in the exhibit occupied by forty-two exhibitors.

The so-called Riley hospital resolution, presented by the Daviess-Martin County Society, was referred to the House of Delegates.

The following letter was read from Dr. William W. Weaver, of Elizabeth, Indiana:

"I expect to call a meeting of the physicians of Harrison county in the near future to effect an organization, having talked to all of them and having their approval and co-operation.

"If there are any necessary blanks or instructions from your department that we will need, please mail them to me at an early date."

The Council instructed Dr. Leach, councilor for the Third district, to make an investigation and report upon this matter, and suggested that any application made by the Harrison county physicians for a charter from the state Association should come through the councilor for the Third district.

There being no further business the meeting was adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

SECOND MEETING

West Baden Session, September, 1926.

The second meeting of the Council was held directly following the breakfast meeting of the House of Delegates at 9:30 a. m., Friday, September 24, in the West Baden Springs hotel at West Baden. Dr. W. R. Davidson, chairman, presided. The following members were present: W. R. Davidson, Evansville; Walter Leach, New Albany; C. E. Gillespie, Seymour; Joseph H. Weinstein, Terre Haute; E. C. Denny, Milton; O. T. Scamahorn, Pittsboro; M. A. Austin, Anderson; C. S. Black, Warren; C. Norman Howard, Warsaw; W. E. Nichols, Hammond (representing the Tenth district in the place of Dr. E. E. Evans, regular councilor); Charles N. Combs, Terre Haute, retiring president of the Association; Frank W. Cregor, Indianapolis, president-elect for 1927; A. E. Bulson, Jr., editor of *THE JOURNAL*, and Thomas A. Hendricks, executive secretary.

The salary of the executive secretary was increased \$250.00 a year, starting as of January, 1926.

A resolution providing for the publication of a delinquent list, i. e., a list of all the members of the Association who have not paid their dues by April first of each year was presented by O. T. Scamahorn. Following discussion by Dr. Nichols, Dr. Black and Dr. Bulson, both for and against, Dr. O. T. Scamahorn withdrew his resolution.

Membership report showed that there had been an increase in membership of eighty-seven (87) members during the year, there being 2,672 members in good standing.

A letter from Dr. Robert Hessler, of Indianapolis, asking the Council to provide funds for the study of the nostrum problem was read. The Council expressed its great appreciation for the work of Dr. Hessler along this line but decided that it had no authority to spend funds for carrying on the work suggested.

The Council expressed vigorous opposition to the action of certain persons in going before the state board of education and asking that parts of the physiology textbooks now in use in the elementary schools be deleted. According to newspaper clippings, attorneys representing unnamed clients have appeared before the state board of education objecting to those parts in the books which have to do with disease and disease symptoms.

There being no further business the meeting was adjourned.

THOMAS A. HENDRICKS,
Executive Secretary.

GENERAL SECTION

West Baden Session, Thursday, September 23, Forenoon.
The General Section of the Indiana State Medical

Association convened at the West Baden Springs hotel September 23rd, 1926, being called to order at 9 o'clock by the president, Dr. C. N. Combs, of Terre Haute.

Dr. Dunning S. Wilson, chairman of the committee on arrangements, spoke a few words of welcome.

Dr. C. N. Combs read the president's address, entitled "The Modern Hospital and the Practice of Medicine."

Dr. John W. Carmack, Indianapolis, read a paper entitled "Infection of Accessory Sinuses." This paper was discussed by Drs. Louis H. Segar, Indianapolis; C. Norman Howard, Warsaw; Ralph S. Chappell, Indianapolis; C. H. Good, Huntington; G. D. Miller, Logansport, and the discussion closed by Dr. John W. Carmack.

Dr. Max Bahr, Indianapolis, read a paper entitled "Malaria Therapy of Paresis." This paper was discussed by Drs. G. A. Estel, Madison; Albert E. Sterne, Indianapolis; Charles Stoltz, South Bend; Frank W. Cregor, Indianapolis; Charles D. Humes, Indianapolis, and the discussion closed by Dr. Max Bahr.

Dr. John R. Newcomb, Indianapolis, read a paper entitled "Non-Operative Treatment of Cataract." This paper was discussed by Drs. H. K. Langdon, Indianapolis; W. F. Hughes, Indianapolis, and the discussion closed by Dr. John R. Newcomb.

Dr. Ernest Loewenstein, Vienna, Austria, read a paper entitled "Some Phases of Tuberculosis." Dr. Alfred Henry expressed the appreciation of the Association for this presentation of Dr. Loewenstein. There was no further discussion of this paper.

Adjourned.

SECTION ON MEDICINE

West Baden Session

Thursday, September 23—Afternoon.

The first meeting of the Section of Medicine was called to order at 2:30 p. m. by the chairman, Dr. Bayard G. Keeney, Shelbyville, Indiana.

Dr. Burton D. Myers, of the Indiana university, addressed the Section briefly regarding the work of the American Association for Medical Progress, called attention to the literature of this Association which had been sent for distribution among the physicians, and expressed the belief that a lay organization in Indiana might get across for the medical profession of the state what the American Association is endeavoring to do for the United States.

Dr. Paul S. Johnson, Richmond, read a paper entitled, "Guidance of the Mild Mental Case." Discussed by Drs. Donald E. Bell, Newcastle; LaRue D. Carter, Indianapolis; Perry C. Bentle, Greensburg, and in closing by Dr. Johnson.

Dr. Ralph H. Major, Kansas City, Missouri, presented a paper on "Experimental and Clinical Observation on Arterial Hypertension." Discussed by Drs. V. H. Moon, Indianapolis; J. H. P. Gauss, Indianapolis; William A. Fankboner, Marion; Charles P. Emerson, Indianapolis; Paul W. Ferry, Kokomo, and in closing by Dr. Major.

Dr. Frank E. Sayers, Terre Haute, read a paper entitled "Differential Diagnosis of Mediastinal Lues." Discussed by Dr. W. H. Foreman, Indianapolis.

Dr. Pierce McKenzie, Evansville, read a paper entitled "Conduct of Ordinary Labor." Discussed by Dr. H. D. Fair, Muncie.

Adjournment at 5:45 p. m. to reconvene at 9 a. m. Friday.

Friday September 24

The second meeting of the Section of Medicine was called to order at 9:20 a. m., by the chairman, Dr. Bayard G. Keeney, Shelbyville, Indiana.

ELECTION OF OFFICERS

The following officers were elected:

Chairman—Dr. Bayard G. Keeney, Shelbyville.

Vice-Chairman—Dr. Robert M. Moore, Indianapolis.

Secretary—Dr. Samuel E. Earp, Indianapolis.

Dr. Edgar F. Kiser, Indianapolis, read a paper entitled "Modern Methods in Diagnosis and Treatment of Heart Disease." Discussed by Drs. C. J. McIntyre, Indianapolis; Robert M. Moore, Indianapolis; Ada E.

Schweitzer, Indianapolis; Herman M. Baker, Evansville; Charles F. Voyles, Indianapolis, and in closing by Dr. Kiser.

Dr. Charles P. Emerson, Indianapolis, addressed the Section on "The Emotional Life and Its Importance in the Production of Pathological Conditions." Discussed by Drs. O. T. Scamahorn, Pittsboro; Charles G. Beall, Fort Wayne; and in closing by Dr. Emerson.

Drs. T. H. Harrell and Elmer Boyd, Evansville, presented a paper on "Dyspepsia in the Breast-Fed Infant." (No discussion.)

Adjournment at 11:30 a. m., *sine die*.

SECTION ON SURGERY

West Baden Session

Thursday, September 23—Afternoon.

The Section on Surgery of the Indiana State Medical Association was called to order by the chairman, Dr. A. A. Rang, Washington, at 2:40 p. m.

Dr. F. C. Walker, Indianapolis, read a paper entitled "Precancerous Lesions of the Cervix Uteri." Discussed by Drs. Thomas B. Noble, Jr., Indianapolis; E. E. Padgett, Indianapolis; O. G. Pfaff, Indianapolis; M. R. Combs, Terre Haute; M. E. Klinger, Garrett; Charles Stoltz, South Bend; C. J. Rothschild, Fort Wayne; T. C. Kennedy, Indianapolis; A. S. Jaeger, Indianapolis; Thomas B. Noble, Jr., Indianapolis; M. L. Curtner, Vincennes, and F. C. Walker, Indianapolis.

Dr. Alexander Randall, Philadelphia, Pa., read a paper entitled "The Prospect of the Prostatic." Discussed by Drs. H. G. Hamer, Indianapolis; Ernest O. Grant, Louisville, Ky.; M. E. Klinger, Garrett; Charles Stoltz, South Bend; Bernard Erdman, Indianapolis; F. S. Crockett, Lafayette; W. S. Ehrich, Evansville; A. F. Weyerbacher, Indianapolis; W. E. Tinney, Indianapolis; D. F. Cameron, Fort Wayne, and Alexander Randall, Philadelphia, Pa.

Meeting adjourned at 5:10 p. m.

Friday, September 24—Morning.

The Section was called to order at 9:10 by the chairman.

The following officers were elected:

Chairman—Dr. Bernard Erdman, Indianapolis.

Vice-Chairman—W. S. Ehrich, Evansville.

Secretary—H. G. Hamer, Indianapolis.

Dr. George T. Johnson, Terre Haute, read a paper entitled "Diaphragmatic Hernia, with Report of a Case." Discussed by Drs. M. C. Sexton, Rushville; H. O. Shafer, Rochester; Budd Van Swearingen, Fort Wayne, and George T. Johnson, Terre Haute.

Dr. N. K. Forster, Hammond, read a paper entitled "Considerations in the Management of Infections in the Genito-Urinary Tract." Discussed by Drs. W. E. Tinney, Indianapolis; W. W. Hewins, Evansville; W. S. Ehrich, Evansville; C. J. Rothschild, Fort Wayne; A. S. Jaeger, Indianapolis, and N. K. Forster, Hammond.

Dr. D. F. Cameron, Fort Wayne, read a paper entitled "Delay and Its Consequences in Acute Appendicitis, with Analysis of 132 Cases." Discussed by Drs. O. G. Pfaff, Indianapolis; J. H. Eberwein, Indianapolis, and D. F. Cameron, Fort Wayne.

Dr. W. R. Davidson, Evansville, read a paper entitled "Regional Anesthesia in Surgery." Discussed by Drs. O. G. Pfaff, Indianapolis; Dudley Pfaff, Indianapolis; H. G. Hamer, Indianapolis; A. A. Rang, Washington, and W. R. Davidson, Evansville.

Dr. M. A. Austin, Anderson, read a paper entitled "Some Neglected Factors in the Goitre Problem." Discussed by Drs. Fred H. Austin, Bloomington; Emil Robertson, Bedford, and J. H. Eberwein, Indianapolis.

Meeting adjourned at 11:45 a. m.

SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY

Thursday, September 23—Afternoon.

The Section of Ophthalmology and Oto-Laryngology held its first meeting Thursday afternoon, being called to

order at 2:25 by the chairman, Dr. E. J. Lent, of South Bend.

The chairman read his address, entitled "Hemangioma of the Choroid: Report of Case."

The following symposium was presented on "The Relationship of Accessory Sinus Infections to Diseases of the Eye."

"Ophthalmological Phase," Dr. Bernard J. Larkin, Indianapolis.

"Rhinological Phase," Dr. John F. Barnhill, Indianapolis.

"Radiological Phase," Drs. Cole, Beeler and Smith, Indianapolis.

This symposium was discussed by Drs. A. B. Knapp, Vincennes; Harry Boyd-Snee, South Bend; J. K. Leasure, Indianapolis; Keith T. Myers, Evansville; F. V. Overman, Indianapolis; A. E. Bulson, Jr., Fort Wayne; Joseph D. Heitger, Louisville, Kentucky; D. O. Kearby, Indianapolis; C. Norman Howard, Warsaw; B. D. Ravdin, Evansville; and the discussion closed by Drs. Bernard J. Larkin and Raymond C. Beeler.

The chairman appointed as a nominating committee C. Norman Howard, H. W. Eby, C. V. Overman. Adjourned.

Friday, September 24—Morning.

The Friday morning meeting convened at 10 o'clock, the chairman, Dr. E. J. Lent, of South Bend, presiding.

The nominating committee made the following recommendations for officers of the Section during the ensuing year:

Chairman—D. S. Adams, Indianapolis.

Vice-Chairman—H. G. Reed, Tipton.

Secretary—B. D. Ravdin, Evansville.

On motion of Dr. D. O. Kearby, duly seconded, the above officers were declared elected.

Dr. Francis Lane, Chicago, read a paper entitled "Carcinoma of the Bulb and Adnexa." This paper was discussed by Drs. Bernard J. Larkin, Indianapolis; E. J. Lent, South Bend; and the discussion closed by Dr. Francis Lane.

Dr. B. D. Ravdin, Evansville, read a paper entitled "Diagnostic Puncture of the Antrum of Highmore." This paper was discussed by Drs. D. O. Kearby, Indianapolis; M. G. Erehart, Huntington; E. J. Lent, South Bend; and the discussion closed by Dr. B. D. Ravdin.

Dr. M. G. Erehart, Huntington, read a paper entitled "Foreign Proteins in the Treatment of Inflammatory Eye Conditions." This paper was discussed by Dr. Francis Lane, of Chicago, and the discussion closed by Dr. M. G. Erehart.

Adjourned.

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

July 26, 1926.

Meeting called to order at 4:45 p. m.

Present: Wm. N. Wishard, M. D.; S. E. Earp, M. D., and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held July 19, read, corrected and approved.

The publicity article upon "Malaria" read, corrected and approved, for release Monday, August 2.

Report from the secretary of the Clinton County Medical Society upon the talk before the Frankfort Kiwanis Club upon "Cancer" received by the bureau.

Letter from secretary of the American Medical Association received.

Suggested topics to be covered by annual report of publicity committee reviewed by the committee. Secretary instructed to prepare draft of report for next meeting.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole August 9, 1926.

WM. N. WISHARD, M. D., Chairman.

THOMAS A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

August 2, 1926.

Meeting called to order at 4:45 p. m.

Present: Wm. N. Wishard, M. D., and S. E. Earp, M. D.

The minutes of the meeting held July 19, were read and corrected, and deferred until the next meeting for approval.

The newspaper article "How to Sleep Well," was read corrected and approved for release Monday, August 9.

The following bills were approved for payment:

The American Medical Association.....	\$.90
Central Press Clipping Service.....	5.00
Charles D. Zacher & Sons.....	8.63
Remington Typewriter Co.....	2.20
Indianapolis News.....	5.00
The Bailey Office Supply.....	10.50
The Kautz Stationery Company.....	.25

Total\$32.48

A list of speakers prepared for the bureau was presented and will be considered at the meeting on August 9.

The bureau directed that two dozen copies of the report of the bureau made to the House of Delegates in 1923 and 1924 be prepared.

Letter from the secretary of the American Medical Association giving names of physicians who have given much attention to periodic health examinations, read.

Letter read from secretary of the Noble County Medical Society stating that newspapers were glad to receive bulletins prepared by the bureau.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole August 9, 1926.

WM. N. WISHARD, M. D., Chairman.

THOMAS A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

August 30, 1926.

Meeting called to order at 4:45 p. m.

Present: Wm. N. Wishard, M. D.; S. E. Earp, M. D., and Thomas A. Hendricks, executive secretary.

The minutes of the meetings held August 2 and July 26, were read and approved.

The following bills were approved for payment:

The Bailey Office Supply.....	\$ 2.00
American Linen Supply Co.....	1.60
Rent and electricity for the month of August.....	2.00
Western Union Telegraph Company.....	.95
Simmons Ink Company, Inc.....	3.50
Dolbey & Van Ausdall.....	4.00
Remington Typewriter Company.....	2.20

Total\$16.25

Correspondence read in regard to the arrangements for the periodic health examination meeting for the Indianapolis Medical Society October 5. The secretary was authorized to write letters to complete preliminary arrangements for this meeting.

Article on hay fever written especially upon request of the Associated Press was reviewed.

Letter received from Delphi, Indiana, asking the bureau to co-operate with a health educational campaign to be conducted in that city.

Letter received from the Hancock County Medical Society asking for a speaker to address the county teachers' institute upon September 3. Secretary was instructed to supply such speaker.

Letter received from Caldwell-Baker Company in regard to medical advertising. The bureau did not feel that it was prepared to consider the matter of paid advertisements in the press.

The secretary was instructed to invite the chairman of the educational committee to attend the next meeting of the bureau which will be held September 7.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole September 7, 1926.

WM. N. WISHARD, M. D., Chairman.
THOMAS A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

September 7, 1926.

Called to order at 4:45 p. m.

Present: Wm. N. Wishard, M. D.; S. E. Earp, M. D.; Murray N. Hadley, M. D., and Thomas A. Hendricks, executive secretary. Guests of the bureau were: Burton D. Myers, assistant dean of the Indiana University School of Medicine, and R. E. Cavanaugh, director of the extension division of Indiana university.

The minutes of the meeting, held August 30, read and approved.

The following bills were approved for payment:

Central Press Clipping Service.....	\$ 5.00
The Bailey Office Supply.....	20.60
W. K. Stewart Co.....	1.05
American Linen Supply Co.....	1.60
Hume-Mansur Company.....	2.00

Total.....\$30.25

The release upon the West Baden convention read, corrected and approved.

The assistant dean of Indiana University School of Medicine, and the director of the extension division of Indiana university appeared before the bureau and discussed the plan of enlarging the work of the bureau through the formation of a joint committee on health similar to that now functioning in the state of Michigan.

Letter received from the councilor of the Sixth district suggesting the importance of carrying the work of the publicity bureau into the schools of the state. The secretary was instructed to answer this communication.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole September 13, 1926.

WM. N. WISHARD, M. D., Chairman.
THOMAS A. HENDRICKS, Secretary.

ABSTRACTS

ANGINA PECTORIS AND PSEUDO-ANGINA

The material for this study was summarized by Eugene S. Kilgore, San Francisco (*Journal A. M. A.*, Aug. 14, 1926), from the records of 253 patients complaining of pain in the region of the heart or, in two instances, pain elsewhere which was thought to be related to the heart or the aorta (stinging effort pain in both wrists with syphilitic heart and aorta, and viselike effort pain in the back in a case of hypertension angina). Pain obviously due to pleurisy, herpes, etc., is not included. Most of the cases were readily classifiable into three main types: (1) lancinating, (2) dull and (3) compression pain. Lancinating pain greatly predominated (136 cases) and with few exceptions was in the precordial region; dull pain comes next in frequency (114 cases) and is also mostly precordial, but not infrequently substernal; and compression pain, while distinctly less frequent in general (forty-five cases), predominates in the central chest location, and is about equally common in the precordia. Of the total number of cases (253) the circulation was normal in 100. There were thirty-six cases of angina pectoris among the 153 cases of circulatory disease. The small angina group is conspicuous for its paucity of lancinating pain. Only one of the four instances was unassociated with other types of pain. On the other hand, the angina group nearly monopolizes the compression pain, especially under the sternum where seventeen are angina, three other types of circulatory disease, and three "normals." Lancinating pain is about equal in frequency in the "normal" and general pathologic

groups; but when the group sizes are considered it is relatively more common among "normals"; 66 per cent of "normals" and 44 per cent of the general circulatory disease group. Dull pain occurred in 42 per cent of the "normals," 53 per cent of the general circulatory disease group other than angina, and in 28 per cent of the angina cases; but, whereas the location of this pain in the angina group was nearly equally divided between sternum and precordia, the others show a strong predilection for the precordia. From these descriptions of pain types and their locations, it appears that in a given case, when the question of angina is raised, the quality, timing and topography of the pain often furnish strong presumptive evidence. Other important data to be derived from histories relate to pain radiation, exciting causes, means of relief, etc. Among fifty-three instances of radiation in the whole disease group lancinating pain at the point of initiation occurred fifteen times; dull pain, seventeen times, and compression pain, twenty-one times. All but one of the thirty-six angina patients recalled definite and usually constant and immediate relations of physical effort to the onset of pain (two instances of lancinating pain; seven, dull; twenty-six, compression); six of them also recognized mental excitement as an immediate cause of pain (two, dull; four, compression pain); and twenty-three were conscious of being more susceptible after meals (four, dull; nineteen, compression). Only one thought that his pain (dull) was more likely to occur some time after completion of effort. The figures in this analysis suggest that possibly dull pain is less commonly a sequel of effort in the nonangina pathologic group than among "normals"; that mental excitement is more often followed by all types of pain in the general pathologic group, and that these "normals" are more prone than others to experience delayed association between effort and dull or lancinating pain. During attacks of angina it is quite common for the patient to feel "as if the wind is cut off" by the constricting sensation of the pain, or he may breathe naturally or may expand the chest in an effort to relieve the pain. On the other hand, patients in the other groups, when they describe any respiratory relations to the pain, usually say they hold the breath for fear of increasing the pain. Palpitation in the sense of consciousness of heart action independent of exercise or excitement, extrasystoles, and the like, was noted in 25 per cent of the angina cases, 51 per cent of the remaining pathologic group, and 53 per cent of the "normals." Cutaneous hyperesthesia or hyperalgesia was noted at times in all groups, but most cases were seen some time after attacks. Means of pain relief were the usual ones in the angina group (cessation of effort, nitrites); in the others, general regulations of rest and exercise, psychotherapy and bromides.

KEROSENE POISONING

Orville Barbour, Peoria, Ill. (*Journal A. M. A.*, Aug. 14, 1926), reports four cases of kerosene poisoning. One of the children died within a few minutes after medical aid was summoned, and no laboratory data could be obtained. However, a noticeable feature of the case was the bright cherry red color of the lips. This persisted until after death. Two of the patients did not get enough kerosene to cause any alarming symptoms. In the fourth case, lavage yielded a large amount of yellow emesis, with casein curds and a pronounced odor of kerosene. An enema was expelled with a large amount of fecal matter and a marked odor of kerosene. As the boy's condition showed no improvement, he was given $7\frac{1}{2}$ grains (0.5 Gm.) of caffeine sodiobenzoate hypodermically and an ounce (30 cc.) of castor oil by mouth, and was placed in a hot wet pack for thirty minutes. One hour later he was still comatose. His temperature had risen a degree higher, and his pulse rate had increased to 180. He was again placed in a hot wet pack, and kept there for twenty minutes. Following this, his temperature dropped a degree, and he seemed somewhat better. The child's general condition continued to improve.

CHRONIC PERICARDITIS

If an endeavor to discover why pericarditis is generally overlooked and to see whether they could not find some additional data that might aid in the diagnosis of this disease, John H. Musser and George R. Herrmann, New Orleans (*Journal A. M. A.*, Aug. 14, 1926), have reviewed all necropsy and clinical records of proved cases of pericardial involvement at the Charity hospital within the last five years. They also have performed a series of experiments on dogs, studying them particularly from the roentgenologic and electrocardiographic standpoint. Among 1,720 necropsies there were 305 cases showing pathologic conditions of the pericardium. The pericardial involvement consisted of (a) increased fluid in the pericardial cavity, 50 cc. or more; (b) pericardium adherent to the heart, or (c) pericardium adherent to the chest wall. Of these 305 cases, thirty-nine presented pericardial lesions which the pathologist believed were contributory causes of death. In addition, there were twenty-nine cases in which, from the records of the necropsy and the history of the patient, it was believed that the pericardial condition also played a part in hastening death. Complete obliteration of the pericardial cavity occurred in fifteen cases. The cause of death in the majority of these cases was cardiac failure. Partial obliteration of the pericardial cavity occurred in twenty-one cases. Parietal adhesions between the pericardium and the chest wall were found in ten cases. The facts elicited from the case histories of the patients taken while under observation in the wards give very little information that might be of value in diagnosis. The symptomatology of chronic pericarditis seems to belong entirely in the silent group, as there are no symptoms until the development of cardiac failure that might suggest the presence of pericardial disease. It is necessary to depend almost entirely on the examination of the patient. As to the possibility of an adherent pericardium being present without symptoms or signs, such may be assumed to be the case (1) in the young person with a chronic valvular disorder associated with considerable hypertrophy of the heart; (2) when there is valvular disease of the heart which fails to respond to digitalis, and (3) in those patients whom the physician had the opportunity of seeing when an acute pericardial lesion was demonstrable. Experimental pericarditis in animals has not as yet yielded information that might point positively to evidence of pericardial disease.

CLINICAL RECOGNITION OF PULSUS ALTERNANS

Nineteen cases of constant alternation of the pulse have been observed by Roger S. Morris, Cincinnati (*Journal A. M. A.*, Aug. 14, 1926), nine in the hospital wards and ten in consultation practice. Of these, seven (or 36.8 per cent) have had alternation in the intensity or pitch of the heart sounds or murmurs. A difference in the pitch of an apical systolic murmur was noted in four, in one of which there was also heard a difference in the intensity and pitch of alternate first tricuspid sounds. In one case, alternation in the intensity and pitch of the first sound at the apex was present, while the remaining patient had similar changes in the second pulmonic sound. It would appear, then, that alternation in the pitch of cardiac murmurs or alternation in the intensity and pitch of heart sounds may be found in a fairly large percentage of patients showing constant alternation of the pulse. However, the sign has not been found in a sufficiently large proportion of patients to make it a very important sign of pulsus alternans. In the same group of patients, the sounds over the brachial artery were studied carefully for deviations from the normal. Alternation was present in thirteen of the nineteen cases. Furthermore, it was noted that the intensity of alternate sounds over the brachial artery usually varied in intensity all the way to the diastolic pressure. In three patients, all pulse waves had the same systolic pressure, but the diastolic pressure of alternate beats varied. Auscultation has given more valuable informa-

tion than palpation over the brachial artery, though with high pulse pressures palpation may give striking findings.

ANALYSIS OF SPINAL FLUID TESTS

James B. Ayer, Boston (*Journal A. M. A.*, Aug. 7, 1926), is of the opinion that spinal fluid findings often do not yield as much value as is possible; that at times the chief significance of the fluid tests is missed, and that occasionally misinterpretation leads to wholly erroneous conclusions. Occasionally, inadequacy of laboratory facilities is a fair excuse for an insufficient number of tests, but a far greater fault lies in the analysis of the recognized tests, an analysis which must be made not in the laboratory but by the physician who knows the individual from whom the fluid was obtained. Ayer's belief is that too many persons are concerned with the fluid. A system by which one physician advises lumbar puncture, an assistant in the syphilis department makes the puncture, two laboratories examine the fluid and the neurologist is then called in to express an opinion on the combined findings, is not conducive to thorough or accurate analysis. An adequate number of tests carried out so far as possible by the physician who knows the clinical story, who himself performs the puncture, and who himself analyzes the findings will yield a maximum of information. Certain tests in Ayer's opinion yield information of greatest value. Not all of these need be employed in every case, but in every diagnostic lumbar puncture one should be prepared to use any or all as indicated. They are: 1. Initial pressure and pressure studies, the latter chiefly to determine presence or absence of block. 2. Naked eye study for color, turbidity, clotting and presence of blood, the amount being compared in three successive tubes. 3. The total number and differential count of cells. 4. A general protein precipitant, such as trichloroacetic acid or alcohol, and, if practicable, a quantitative determination as with sulphosalicylic acid. 5. The globulin ring test with saturated ammonium sulphate, which is highly satisfactory. 6. The Wassermann test. 7. Gold chloride test of Lange or benzoïn test of Guillain. 8. Direct smears and cultures of bacteria and, rarely, inoculation. 9. Quantitative sugar and chlorides and nonprotein nitrogen. These tests may be grouped under the following headings: physical, chemical, histologic, biologic and bacteriologic. Experience shows, however, that a keen analysis of the first five will give by far the most information and it will be noted that of these five, all except the Wassermann test may be carried out by any physician who has the ability to perform a lumbar puncture. Colloidal tests, quantitative chemical studies and bacteriologic technic play a real part in thorough analysis of an appropriate case, but Ayer maintains that without them a very good conception of most cases can be obtained. There is no question that the simplest tests, carried out and analyzed by the individual performing the puncture who also knows the patient, are of the greatest value.

RETENTION OF VEGETABLE MATERIAL IN STOMACH

In the case here presented by Lloyd Bryan, San Francisco (*Journal A. M. A.*, Aug. 7, 1926), the retained matter was composed of celery fibers, prune and raisin skins, and other cellulose material which could not be identified. The mass was soft and loose and had to be removed with a spoon and by sponges on a sponge stick. The patient was a man, aged 55, a native of India. The past history was uneventful so far as concerned the present illness. Up to three years before, the patient had been very well. About that time he began to feel some abdominal distress, at first after meals and later constantly. It was characterized by a feeling of fullness and lightness, relieved somewhat by belching. There was occasional vomiting. At the same time there was a dull pain in the epigastrium and across the abdomen but not referred to the back or shoulder. The stools

had always been formed and never tarry or clay colored. He had had diarrhea at times, sometimes six or eight stools in a day. He had never been jaundiced. The conclusion from the roentgen-ray examination was: retained foreign material in the stomach. At operation, aside from the retained vegetable material in the stomach no lesion was found. The pylorus was smooth and wide, admitting two fingers readily. Three months after the operation the roentgenogram of the stomach was normal and there was no six-hour gastric residue. This case is of particular interest on account of the fact that the patient was diabetic. The blood sugar (fasting) was 301 mg. per hundred cubic centimeters of blood.

GENTLENESS IN GENITO-URINARY SURGERY

Bound up intimately with this question of using genito-urinary instruments in a manner that will not bruise the tissues and lay them open to easy invasion of infecting organisms, J. Bayard Clark, New York (*Journal A. M. A.*, April 17, 1926), says, is the larger subject of mental and nervous traumatism through fright, fatigue, fear, shock, apprehension, anxiety, alcohol and general anesthesia. Not a single one of these causes, which play major roles in depression of tissue resistance and pave the way for local infection, can for a moment be lost sight of or forgotten by the urologist bent on attaining a high level of results. By gentleness, we can avoid virtually all the pain in connection with instrumentation. By gentleness, we can overcome the patient's apprehension, which unconsciously closes the external sphincter of the bladder. By gentleness in dealing with strictures, we can obviate splitting the scar and adding to it new fibrous tissue. By gentleness in cystoscopy, we can almost always avoid using anesthetics, which only blunt the patient's sensibility, our surest guide in avoiding traumatism with its many undesirable sequelae. But even with gentleness in genito-urinary technic, a desirable state of affairs is not to be expected from those not sufficiently trained and experienced. Genito-urinary work is the one thing the young practitioner, as he starts in practice, looks to as his surest financial support. It is the one thing that he is least fitted to attempt, for it seems the one medical branch of all others in which there is the greatest possibility of doing harm and inflicting permanent injuries. Perhaps one of the most serious situations of all from the standpoint of the patient and of the prestige of the profession of medicine as a whole is the practice of some general surgeons to assume the responsibility of serious genito-urinary surgical cases without the least equipment or training, other than their ability as operators. If the general surgeon sincerely believes that the surgery of the genito-urinary tract should be included in his field and excluded from the smaller but highly technical branch assumed by the specialist, there can be no possible objection to his training himself to equal proficiency in the diagnostic and preoperative responsibility, and to his learning to see his patients out of their difficulty after operation.

FRACTURED PATELLA

In the method devised by Frank P. Corrigan, Cleveland (*Journal A. M. A.*, Aug. 7, 1926), the adhesive plaster is first applied above and below the knee, and the lower plaster strips as they converge pass through a slotlike opening in the converging plaster extension which has been applied above over the quadriceps femoris. After adhesive plasters have applied and allowed to set well on the skin of the injured leg, a flattened cylinder of cardboard is placed over the knee, the ends curving up in like a cow's horn, above and below; a pad about 4 inches in circumference is placed on top of it immediately over the patella. A plaster cast is then applied to the leg in such a way that the ends of the flattened cardboard cylinder are left outside. The pad causes

the plaster to harden in the form of a dome over the patellar region, thus rendering the fracture region accessible for observation. The cardboard cylinder and pad are both removed when the cast has hardened. The cardboard cylinder, curved in a semicircle, leaves slotlike openings above and below the patella. This leaves the region of the fracture readily accessible and permits adjustment of the extension apparatus which has been previously applied. Incorporated into the cast above and below the knee are two hooks or rings; these can be fixed in place by wire buried in the plaster. Corrigan has used, in some cases, hooks that have been soldered to flexible sheet brass or aluminum plates. Picture wire is securely attached to the ends of the extending adhesive plasters. The other ends of the wires are secured to turnbuckles and the extension applied above and below by attaching to the hooks and screwing up the turnbuckles to required tension.

MEDICAL EDUCATION AND MEDICAL SERVICE

Some of the topics discussed by William Allen Pusey, Chicago (*Journal A. M. A.*, May 15, 1926), are: the average age of rural physicians (which is placed at 52 years, in 283 rural counties in forty-one states in the United States; the average time in practice is twenty-six years; in these 283 counties, there are only 398 physicians who are graduates of the last ten years; *i. e.*, 1.4 physicians to the county; in 100 of these 283 counties, or 35 percent, no graduate of the last ten years has gone into practice); whether we are producing enough doctors; the failure of schools to take care of applicants; denial of the effect of high cost in restricting distribution; necessity of getting medical students from the country; the Europeanizing of medical service; the relative competence of American physicians; the quality of our students, and the effect of the expensiveness of medical education on the schools and on the student. Pusey would reduce the time of academic undergraduate medical education on the basis of sound educational principles.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

IYVOL.—A solution of olive oil of an irritant or vesicant oil extracted from the fresh leaves of poison ivy. Ivyol is used to relieve the symptoms of the dermatitis produced through contact with poison ivy. It is marketed in "Hypo Units," collapsible syringe containers, each containing 0.7 cc. of ivyol. H. K. Mulford Co., Philadelphia.

PITUITARY EXTRACT-LEDERLE 20 UNITS.—A slightly acid aqueous solution containing the water-soluble principle or principles of the fresh posterior lobe of the pituitary body of cattle, free from preservative. It is standardized to have twice the strength of solution of pituitary—U. S. P. X. For a discussion of action, uses and dosage, see New and Nonofficial Remedies, 1926, pp. 281 and 283. The product is supplied in 1 cc. ampules. Lederle Antitoxin Laboratories, New York. (*Jour. A. M. A.*, Aug. 14, 1926, p. 491.)

ERYSIPELAS STREPTOCOCCUS ANTITOXIN.—An antitoxic serum prepared by immunizing animals against the toxin of the hemolytic streptococci of erysipelas. Reports have been published which indicate that the injection of erysipelas streptococcus antitoxin favorably affects the course of erysipelas.

ERYSIPELAS STREPTOCOCCUS ANTITOXIN-MULFORD.—This antitoxic serum is obtained by injecting horses intradermally with strains of hemolytic streptococci isolated by H. Amoss from human cases of erysipelas lesions, bleeding the horses and when test bleedings show the serum to have reached the desired potency, separating the serum, sterilizing and preserving it. The product is

marketed in 100 cc. vials. H. K. Mulford Co., Philadelphia.

OSCODAL.—A preparation of the nonsaponifiable fraction of cod liver oil, containing the antiphthalmic and antirachitic fat soluble vitamins. It has 500 times the antiphthalmic potency of cod liver oil when assayed by the method of the U. S. P. for cod liver oil, and its antirachitic potency is such that 0.02 Gm. per day will initiate recalcification in the leg bones of young albino rats. Oscodal possesses properties similar to those of cod liver oil so far as these depend on the fat soluble vitamin content of the latter. Oscodal is supplied in tablets containing 0.02 Gm. H. A. Metz Laboratories, Inc., New York.

PITUITARY SUBSTANCE-L. & F. DESICCATED.—The pituitary gland of cattle, including the infundibulum and the anterior and posterior lobes, dried and powdered. For a discussion of the actions and uses, see Pituitary Gland, New and Nonofficial Remedies, 1926, p. 281. The product is also supplied in 1½ grain tablets. Lehn & Fink, Inc., New York.

ANTERIOR PITUITARY-L. & F. DESICCATED.—The anterior lobe of the pituitary gland of cattle, dried and powdered. For a discussion of the actions and uses, see Pituitary Gland, New and Nonofficial Remedies, 1926, p. 281. The product is also supplied in 1 grain tablets. Lehn & Fink, Inc., New York.

POSTERIOR PITUITARY-L. & F. DESICCATED.—The posterior lobe of the pituitary gland of cattle, dried and powdered. For a discussion of the actions and uses, see Pituitary Gland, New and Nonofficial Remedies, 1926, p. 281. The product is also marketed in the form of 1/10 grain tablets. Lehn & Fink, Inc., New York. (*Jour. A. M. A.*, Aug. 28, 1926, p. 671.)

PROPAGANDA FOR REFORM

CRYSTALLINE TUBERCULIN.—The isolation of a crystalline protein with tuberculin activity has been reported. The crystallized product elicits the characteristic skin reaction in tuberculous subjects. Chemically, it is shown that wherever the activity is lost, following enzyme treatment, there occurs also a corresponding reduction in whole protein, with an increase in proteose and residual nitrogen. (*Jour. A. M. A.*, Aug. 7, 1926, p. 417.)

SILVER PROTEIN PREPARATIONS.—At the request of the Council of Pharmacy and Chemistry, the A. M. A. Chemical Laboratory examined the silver protein preparations that had been found acceptable for New and Nonofficial Remedies in order to determine whether or not they complied with the standards of the U. S. Pharmacopeia X. The laboratory reports that all of the specimens of the silver protein preparations both mild (Argyrol type) and strong (Protargol type) described in New and Nonofficial Remedies were found to comply with the new U. S. Pharmacopeia standards for these preparations. (*Jour. A. M. A.*, Aug. 7, 1926, p. 430.)

JOHN HOWLAND.—The Council on Pharmacy and Chemistry publishes an appreciation of John Howland. By the death of John Howland, the Council has sustained a great loss; for he was a member whose devoted services were much valued and whose contributions to the scientific progress of medicine have been outstanding. The members of the Council mourn the loss of their colleague, and point to his services as an inspiration for all. (*Jour. A. M. A.*, Aug. 14, 1926, p. 491.)

NAFTALAN NOT ACCEPTABLE FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Naftalan, according to the Fort Dearborn Drug and Chemical Co., is manufactured by E. Stiewe, Magdeburg, Germany, and is "a preparation of Russian mineral oils containing about 4 per cent of soap, in the form of an ointment." The claims made for the preparation are closely similar to those which were formerly made in the exploitation of Ichthyol for various skin diseases. The Council found Naftalan unacceptable for New and Unofficial Remedies because the information in regard to its composition is unsatisfactory and indefinite and because

the therapeutic claims advanced for it are unwarranted. (*Jour. A. M. A.*, Aug. 14, 1926, p. 509.)

RAY AND LIGHT THERAPY IN OTOLARYNGOLOGY.—Violet ray and quartz light therapy have not been scientifically established as of great value for conditions of the nose and throat, as compared with the generally accepted medical treatment. With every new type of treatment, especially along the line of mechanical or physiotherapy, some investigators become overenthusiastic and report glowing results. As time elapses, it is found that most of these measures give some relief to a small percentage of patients but fail entirely in many others. (*Jour. A. M. A.*, Aug. 21, 1926, p. 607.)

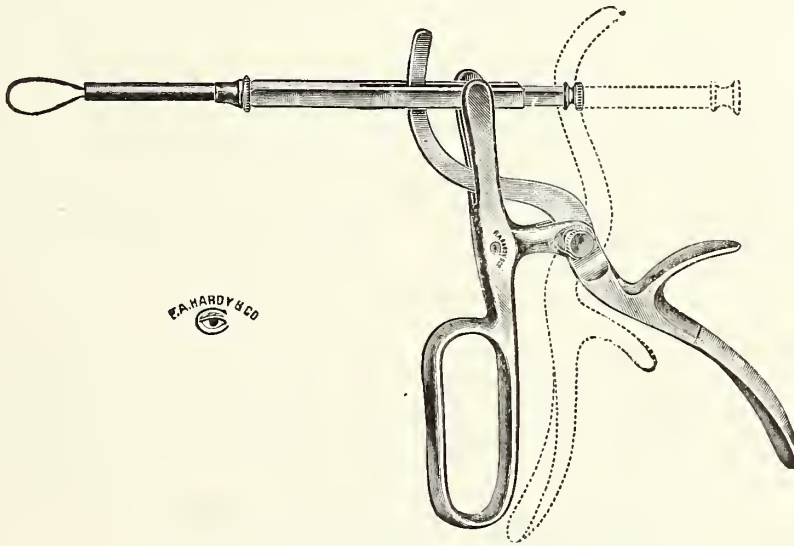
PREVENTIVE INOCULATION AGAINST RABIES.—In the use of anti-rabic inoculation, there is no especial advantage in the use of the treatment requiring a considerable number of doses over that in which a smaller number are employed. Within recent years the killed virus has to a very considerable extent replaced the attenuated virus. A number of modifications of the Pasteur treatment are licensed by the treasury department and all are considered to be safe and effective. The duration of immunity in man after a series of antirabic injections is unknown, but it is generally advised that an exposure to rabies more than six months after a course of treatment should be followed by a new course of the prophylactic. (*Jour. A. M. A.*, Aug. 21, 1926, p. 607.)

BESFAL.—Besfal is marketed under absurd and ludicrous claims. The claimed chemical composition of the product and the product itself both may be described as "crude." (*Jour. A. M. A.*, Aug. 21, 1926, p. 608.)

THE SAN-GRI-NA AND SILPH CHEWING GUM FRAUDS.—"San-Gri-Na" was put out by the imposingly named "Scientific Research Laboratories" and "Madame Elaine." The laboratories were non-existent and so was "Madame Elaine." "Silph Chewing Gum" was sold by the "Silph Medical Company" and "Madame Claire." There was nothing medical about the company; there was no "Madame Claire." The San-Gri-Na fraud was analyzed in the A. M. A. Chemical Laboratory in 1924 and an article published on the subject in THE JOURNAL of November 22 of that year. One of the chief advertising assets of the San-Gri-Na fraud was a testimonial by Dr. J. J. Rudolph, 636 Garden street, Hoboken, New Jersey. He is the same J. J. Rudolph, apparently, that exploited a quack cure for malaria a few years ago. The facts, as brought out by government investigation show that both San-Gri-Na and Silph Chewing Gum are enterprises of one W. E. Learned. Both San-Gri-Na and Silph Chewing Gum contained pokeroor, leptandrin, phenolphthalein and desiccated thyroid, and both, according to the government report, were made by the H. K. Mulford Company of Philadelphia. In addition to these two obesity cure fakes, Learned had two subsidiary humbugs in the same line: "Dr. Folt's Reducing Soap," which the Federal chemists reported was an artificially colored soap made largely from palm oil or a similar fat, and containing a minute amount of iodine in the form of water soluble iodides, and "Sangra Salts," which was Epsom salt colored. (*Jour. A. M. A.*, Aug. 28, 1926, p. 688.)

SPÄHLINGER TREATMENT FOR TUBERCULOSIS.—From time to time M. Spählinger has given out enthusiastic reports from his Geneva hospital. Because of the favorable newspaper comment, more particularly in England, concerning this product a report was made on it by the science committee of the British Medical Association. In the statement of this committee, published last spring, the history of the preparation was summarized and the committee strongly emphasized that it cannot endorse "this or any new method until after a full and independent test." The committee concluded that the remedy is secret and that the exact methods of preparation have never been fully published; and further, that no investigations carried out under strict experimental conditions which afford direct and convincing evidence of curative action have been published. (*Jour. A. M. A.*, Aug. 28, 1926, p. 693.)

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BOOK REVIEWS

VISUAL FIELD STUDIES. By R. I. Lloyd, M. D., F. A., C. S., Surgeon, New York Ophthalmic Hospital. 124 Illustrations, 224 pages. The Technical Press, New York, 1926. Cloth. Price \$6.00.

This is a very useful book for the ophthalmologist as well as others who are interested in studying visual fields. Several pages are devoted to the history of perimetry, the physiology of the retina, and a description of normal fields and blind spots together with indications for field study. The evolution of the perimeter from a small blackboard up to the highly satisfactory perimeter and campimeter is described. Of particular interest is the chapter containing a practical set of indications for field studies as an aid to the ophthalmologist in establishing an efficient office routine. Other chapters are devoted to the fields of vision in retrobulbar diseases, chiasm diseases, tract diseases, lesions behind the ptalamus, and cortex lesions. The relationship of visual field studies to squint is discussed, as also the field findings in amblyopia exanopsia. Much attention is given to the field study of the blind spot, as also the visual fields in glaucoma, beginning with the very faint evanescent Seidel sign, followed by the Bjerium sign, and the late Roenne's nasal step. The advantages and disadvantages of the various tests are fully described. The importance of perimetry in the study of various ophthalmic diseases is fully brought out, and especially as they pertain to lesions that are not discovered by the use of the ophthalmoscope. The book contains 224 pages, is well illustrated, and we highly commend it to everyone interested in visual field studies.

DISEASES OF THE EAR, NOSE AND THROAT. By Harold Hays, M.D., F.A.C.S., Associate Otolaryngologist, City Hospital, New York City, Consulting Otolaryngologist,

Sing Sing Prison, etc. Illustrated. Cloth. Price \$10.000. F. A. Davis & Co., Philadelphia, 1926.

Many excellent textbooks on diseases of the ear, nose and throat have been presented to the profession, but most of them are too technical. According to present-day standards not a few of them are out of date. This textbook written by Dr. Hays is decidedly up to date in every particular, and will meet the wishes as well as the needs of medical men who have been looking for something that is really practical and which gives the last word in ear, nose and throat diagnosis and treatment. During the last decade many advances have been made, not only in medical treatment but surgical management of ear, nose and throat affections. Through the keen differentiation of pathological conditions, and with greater use of the bacteriological laboratories, cultures, vaccines, Wassermann tests, protein tests, etc., one is able to diagnose and treat with more intelligence. There also has been a very great improvement in the types of instruments for examination, diagnosis and treatment. Electricity has done a great deal by giving us electric headlights, transillumination lamps, thermic lamps, diathermy, ultraviolet rays, ionization, and x-ray. All of the advances in these special fields of investigation have been touched upon more or less thoroughly by the author in his splendid textbook. The book is eminently practical and is written by a practical physician of experience and reputation. It is splendidly illustrated, and all in all will meet the requirements of the average physician and be appreciated by the critical specialist. We heartily recommend it.

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ORIGINAL ARTICLES

CONDUCT OF ORDINARY LABOR*

PIERCE MACKENZIE, M.D.
EVANSVILLE

My reason for this paper is that I believe that ordinary labor should be a normal labor, that the ordinary management of labor is an index to the present stage of advancement of obstetrics, and that the management of the ordinary case controls, to a large extent, the pathological.

Our excuse for being obstetricians is to lower both the maternal and the fetal mortality and morbidity, to make possible motherhood to those who without skill and art would otherwise be deprived of it, to shorten labor, if possible, in the safest and simplest way, and to relieve pain in so far as is safe for both the mother and the child.

We should treat an obstetrical case with the same aseptic and antiseptic conscience as we would any other surgical case. The generous use of green soap and water is the essential part of preparing the patient for delivery.

Nature originally planned the management of labor for humans unaided, as she takes care of labor for her other creatures, but as with them she makes mistakes and gets into difficulties. She welcomes a friendly aid but she resents the hasty and the overzealous. So long as labor proceeds normally and with sufficient speed it is our duty to let nature alone, but to be on the alert to assist at the first sign of distress. Nature treats her affairs in the gross, planning on a large production and a large percentage of error. As physicians, we hope for every case to be a success. It may not be good for posterity, but we see it as our duty.

During the process of labor, the orderly, sometimes disorderly, passage of mucus, liquor amnii and blood, the child, placenta, and more blood tend to keep the inside of the uterus from external invasion. For the welfare of the patient there is little need of the examining finger. It is chiefly for the convenience of the attendant. For the information desired abdominal and rectal examination is sufficient, except in the pathological case

where a vaginal examination is advisable to learn conditions more accurately. More especially it is with the pathological case, where time is a large factor, with often prematurely ruptured membranes, or where a Caesarean section is a possibility, that rectal examinations should take the place of repeated vaginal examinations in so far as is possible. We would perhaps be more careful if we treated every case as one in which there might be a possibility, however remote, of its terminating as a Caesarean section.

I believe the best results are obtained where the first stage of labor proceeds passively on the mother's part and with no outside interference, and the second stage with the active help of the mother: that is, the mother should not be encouraged to "bear down" until the cervix is fully dilated. To do so predisposes to prolapsus afterwards. The steady progress through the pelvic floor of the presenting part, with its consequent shaping and the gradual stretching of the maternal tissue, is preferable to any style of rapid delivery. Evidence of exhaustion of the mother and child is not in direct proportion to the time element but an individual factor. Too often it is a question of impatience and ignorance rushing in where wisdom would fear to tread. Too frequently we see cases where morphine should have been used instead of forceps or pituitrin.

Perhaps some of my, or any obstetrician's, happiest moments are in the midst of a delivery by a version, or a forceps, or a Caesarean section, but I cannot believe that even if the mothers and babies survived the operation 100 per cent, that such procedures applied to 100 per cent of labors would be the best for the patients. Nor if such were true, is it possible for the average run of obstetrician to have a class of patients who will all go to the hospital or who can afford to pay for such deliveries. I believe that the reason for a considerable number of operative procedures, including also the large amount of pituitrin given, is not with the welfare of the mother and child in view, but for the convenience of the attendant or the excuse for a possible increase in fee.

When it comes to assisting the mother, I believe that every case should be a law unto itself and all the methods of our armamentarium be called into play, using the method best suited to

*Presented before the Section on Medicine at the annual session of the Indiana State Medical Association, West Baden, September, 1926.

that case, not one method for all. Our guide as to when assistance is necessary is the mother's pulse, not her words, and the baby's heart, using frequently, the DeLee-Hillis stethoscope.

During the second stage of labor the physician should be prepared to terminate labor at once should the baby's heart demand it for the preservation of its life. This means that pituitrin should be in a syringe ready for use to cause cramps if there is a uterine atony, that sharp scissors or a knife be at hand if an episiotomy is indicated, and forceps be sterilized and ready if immediate delivery is imperative.

If, in the second stage of labor, the child's head is well engaged with no disproportion and there is no reason for hindrance to birth, and the uterine pains are becoming poor in quality, pituitrin is the best method to try first. To say that pituitrin should never be used before the baby is born is, I think, too extreme. Three to five drops as a first dose, and repeated if necessary, to make a few strong pains with a can of ether always close at hand to use if there is any uterine tetanic idiosyncrasy—may be all that is necessary for birth, or the pituitrin with Kristellar pressure. If the pains are strong and long-lasting with no advancing of the presenting part, to give pituitrin is wrong and purposeless, and unless we are sure that labor can be terminated rapidly, very dangerous for the mother and especially so for the child. The greatly increased and constant intrauterine pressure of a uterine tetany I believe causes brain hemorrhage in the child especially if there is a rapid birth of the head with a sudden relief of the pressure on the head. Furthermore, if the cervix is not completely dilated the child may tear its way out of the mother's pelvis. The giving of one, two or three c.c. of pituitrin to a woman in hard non-advancing labor makes one shudder, but it is continually done. Someone watches over the patient and the doctor if bad results do not follow.

For occipitoposterior positions especially in the multipara, timely manual correction will often save hours of pain.

A simple episiotomy may save many minutes of pressure on the child's head and is especially valuable when the cord is around the child's neck.

The next simplest procedure, I believe, is a forcep delivery where there is engagement of the head and no malposition; that is, occiput-anterior or one so convertible. I believe that for any case for which forceps are suitable one should be able to obtain definite progress with such pulls as are possible with the feet on the floor and not braced on the bed for leverage. If more force than this is necessary, something is wrong with the forceps or the child's position in them. Find it out! "Don't," as Dr. Rudolph Holmes laments, "drag the poor woman all around the room." Personally

I prefer a Simpson forcep or a Webster-Milne-Murray axistraction forcep. The Tarnier forcep I consider a better cranioclast than conservative instrument. I have used the Kjelland forcep only a half dozen times, but find no obvious advantage. So far in my practice a Simpson type forcep will do any legitimate forcep operation.

For the last year I have been using the Williamson (I) technique in occipitoposterior positions. It consists of manual correction of the head to transverse or beyond and, after correction, applying the first blade of the forcep on the side of the pelvis that the occiput lies. Or better in his own words, "The principle of this procedure is the application of the forceps to the head lying in a transverse position in the pelvis. In the maneuver to deliver the occipitoposterior head by one application of the forceps the hand is introduced into the vagina, the head rotated to the transverse position and the posterior blade of the forceps introduced into the hollow of the sacrum. The second blade is inserted along the sides of the pelvis, the handle depressed and the blade placed on the side of the head beneath the symphysis. The important feature in the introduction of the blades is to depress the handles. Rotation takes place spontaneously in many cases and very easily in the others." I do not believe a Kjelland technique has any advantage over the Williamson for a legitimate forcep operation.

I can not think a Scanzoni procedure good obstetrics compared to a version and extraction. Where forceps are too liable to injure the mother or the child, as with a poor position not easily correctable, or where too much force is necessary, and with non-engagement surely, I believe that the version-extraction of Potter (2) the best judgment.

Hurry is responsible for much woe in the practice of obstetrics. A broken clavicle, arm or thigh, or a torn brachial plexus is usually the result of excitement-hurry.

During the delivery of a child by version-extraction or of a breech the physician may well repeat to himself, "Take your time." Deliberation is more successful than speed.

Such may be applied to the delivery of large shoulders. Often after carefully delivering the head over an intact perineum, in a few seconds the latter is broken down by a rapid and careless delivery of the shoulders. Determine which shoulder should be anterior by observing the spontaneous external restitution of the head. First depress the head so that the anterior shoulder becomes engaged under the symphysis, then lift the head to deliver the posterior shoulder, then depress the head again to let the anterior shoulder out, and the body follows. To do this the patient's hips must be at the edge of the table or bed. One should foresee getting the patient into the best position for emergency.

We should determine before we start that a given operative case is to be a vaginal delivery or an abdominal one, not attempt a vaginal with a Caesarean section as an alternative. A Caesarean section in good hands as an uncomplicated primary procedure should cause no anxiety.

There are still men who call themselves physicians who say to a woman who has had a difficult labor and perhaps has lost her first baby, "Never let this happen again." There is nothing more cruel. There has never been a term pregnancy which could not have been terminated happily for mother and child if conducted in the way it should have been conducted, vaginally or abdominally, using the best possible obstetrical judgment. Of course we take into consideration the ill luck which may happen to the most normal of deliveries, but all pregnant women run that risk.

After a mother has lost one child because of a difficult delivery with disproportions, it is a dishonor if we let it happen again trying to deliver her in the same way. She will not keep on having babies for our experimentation. Why should we be so reluctant to give her the benefit of a Caesarean section which would, electively or after a fair test of labor, most surely give her a living child rather than the horror of a repeated former experience? I do not refer to the unfortunate experience of a lost child with a first labor with no severe disproportion, for the second is often of the most rapid and happy termination. I refer especially to the woman of thirty years or more who has lost her first baby after a terrible delivery and is trying again. It is usually this one or none. The surest way is the legitimate one and that is the elective Caesarean section.

The modern woman demands relief of pain. It is with the primipara that this relief is most necessary. Whether or not she has a second baby sometimes, and often, depends upon the painfulness of the first. For the past two and a half years I have been using the Gwathney method whenever possible. Its present generally used formula is excellently described by Gwathney (3) and A. B. Davis (4). Some experience as to when and how to give it is necessary for best results. I have found that the value of the magnesium sulphate is often obscure, but added relief is many times definitely present after its use and I therefore continue to use it. The patient must have had an enema and have been quieted by the morphine long enough before the installation of the ether mixture. One-half hour is sufficient if the patient is getting well on in labor and only a small dose of morphine, one-eighth to one-sixth grain has been given. In the earlier stages where a quarter-grain of morphine has been given and has put the patient to sleep the installation may not be necessary for many hours. First an ounce of plain warm olive oil is instilled and in five to ten minutes the ether

mixture is allowed to run in by gravity slowly enough to be easily tolerated. I use a four-ounce B-D asepto syringe and use a little pressure if there is stoppage to flow. Where I have previously used the quinine to stimulate pain I use quinine hydrobromide gr. x in the mixture, otherwise gr. xx. The injection of the mixture may be repeated if the labor is unusually long. As a rule the patient is eased and quieted with the labor progressing steadily. Often the patient awakens with the cervix fully dilated, and if there was previously a posterior position, it is now rotated and the patient is ready to receive nitrous oxide and oxygen with her pains and to help herself. In other words, analgesia in the first stage of labor allows nature time to do her work unhurried. It is necessary that the patient be constantly watched by a nurse while under the ether by bowel, otherwise she might roll off the bed. The patient often has only vague memories of the whole labor afterwards. This method fills in the gap between the morphine and the second stage giving of ether or nitrous oxide gas by mask.

Not all cases are successful. Perhaps 5 per cent of my cases have not had good results due to using the installation too near to the delivery time, especially in a multipara or where the bowel is unusually sensitive and there is burning or cramping. The patient, when promised relief, will usually do her best to retain the mixture for the few minutes necessary for its quieting action to take effect.

For the multipara when the rectal anaesthesia is untimely nitrous oxide, or ethylene, and oxygen, with or without ether may be given as soon as she desires it. Considering the greater paralysis of the respiratory system and the danger of the explosion of ethylene I still use nitrous oxide most of the time, unless conditions are such that I do not have to worry about the ethylene.

After the birth of the child and it is a single pregnancy, I routinely have the nurse give one c.c. of pituitrin, if it has not been given just before birth. I am quite sure that it makes more rapid the separation of the placenta and increases the tone of the uterus after the placenta is out. The necessity for manual removal of the placenta. I think, is one of the rarest of obstetrical conditions.

For the last two years I have been using the Ziegler (5) cord clamp. It is easy to apply. I have never had a slipping or a bleeding, and the cord is off in forty-eight to seventy-two hours with few exceptions. This means a clean, dry stump while it is coming off and a quickly healed wound afterwards.

Few babies need a stimulus to breathe after all the mucus is aspirated from the mouth and nose with a catheter. The catheter is itself a stimulus, especially in the nose. As long as the muscle tone is good and the baby coughs it will react all right, or it will with a little spanking; but one must be

careful of the pale, limp baby. For artificial respiration I like the "book method," or holding the child by the feet with the head down, squeezing the chest rhythmically and sucking out any mucus coming into the throat with a catheter. While watching for any spontaneous efforts and aspirating mucus from throat and nose keep the baby in water at body temperature. A cold dip is a strong stimulus, as is mouth to mouth breathing. I have found the quickest results in the dangerously apathetic babies with aromatic spirits of ammonia. A few drops of it are put on a damp piece of gauze. This is placed over the child's mouth and mouth to mouth breathing is used, expanding the lungs and blowing the ammonia into them. If there is any heart-beat at all I have always had a response, at least, to the ammonia. With some babies I am sure that it is all that saved their lives. I wish I could have back some of the babies whose breathing I was unable to establish before I realized its value. I keep the ammonia at hand for every delivery. I first saw its use reported in an article by Simon Reisler (6), January, 1925.

In nearly every primipara there is some tearing. I call your attention especially to the tears in the anterior fourchette on each side of the clitoris and urethra. A timely episiotomy will prevent these tears. Often apparently there is no tear posteriorly, but on examination one finds the skin separated from the underlying tissues down to the rectal sphincter muscle. It were better the skin had torn. Therefore I cut the skin and repair the wound from the bottom up. Then, too, the hymen ring is often found ragged. It is best to cut off the hanging tags and with catgut make the ring smooth. Hard chromic is necessary for all mucus tears and the building up of all deep ones. To have any tear of importance, other than a first degree one, hold, silkworm gut (or silk) is necessary. Chromic catgut for the skin is a waste of effort. With all chromic building up sutures, we should try to bring the tissues back as they were originally. The silkworm suture should hold them in place until they are healed. The two important silkworm sutures are the ones to make continuous the hymen ring and to bring together the two lateral angles of the skin rupture.

After spontaneous labor I do not ordinarily bother the cervix but after a forceps or breech extraction I examine it, pulling it down with DeLee cervix-holding forceps and sewing with interrupted chromic suture whatever tear is present. I have just started to use the Bumm retractor. Its blade is seven inches long and three inches wide at the distal and four inches at the proximal end. It gives unusually broad and deep retraction of tissues.

Good position, light and anaesthesia, plus good, clean aftercare are necessary for repair. The

difference in repair-results in the hospital and in the home is due to the difference in these two places.

As for any other surgical case, I believe the patient should lie in bed until her wounds are healed. On the third or fourth day, in the average case, the patient may sit up on a partial back rest. This helps uterine drainage. After the seventh day she may lie on the abdomen to draw the uterus away from the sacrum.

With final instructions she should be told to use the "knee-chest" position for a month at least and to sleep on her abdomen or sides.

Ordinary good care does not stop until the patient is examined when the baby is six to eight weeks old, and if there are any abnormalities present they are corrected if possible.

DISCUSSION

H. D. FAIR, (Muncie): I insist that the obstetrician be closely in touch with his pregnant patient at all times, but after labor has started and he has assured himself that the presentation is normal and the woman doing well, I believe it policy for him to absent himself during a large part of the first stage. There are always some relatives or friends who insist that he do something, and these neighbors will make his presence at this time uncomfortable, even though he has no trouble with his patient. Happy is the physician and blessed is the patient having a good obstetric nurse who banishes officious meddlers from the lying-in-room.

The question of rectal touch seems to be omnipresent. It is rare, in these days, that I see a case of normal labor. In abnormal cases I find vaginal examination necessary and I have no hesitancy in making it. In fact, I am now just as confident in the belief that no physician who cannot make a vaginal examination with safety to his patient has any business practicing obstetrics, as I was when I first made this assertion before the Society some eighteen years ago.

Probably the most radical averment made by Dr. McKenzie is—"There has never been a term pregnancy which could not have terminated happily for mother and child if conducted in the way it should be." With this I fully agree, for all the disasters connected with parturition that I have ever seen might have been prevented had some good obstetrician seen the patient three weeks, three days, and in some instances three hours before the emergency occurred.

I wish to repeat what I have often said: All obstetric operations should be those of election and not actions of last resort.

I concur with Dr. McKenzie's plan in after-care. I advise my puerperal patients to roll from one side of the bed to the other several times each day. If there is no contraindication I instruct the patient to sit in a chair on the sixth day while her bed is being made; to walk to the dinner table and eat what she wants on the seventh; to

sit up for two or three hours three or four times on the eighth, and to take up some of her old-time routine on the ninth.

In one instance only does my technic differ from that of Dr. McKenzie. In arrest of shoulders at the vulva I attempt to deliver the posterior shoulder while the anterior is well up behind the symphysis. I believe the distance from the side of the neck to the posterior shoulder, and later from the anterior shoulder to the posterior axilla, is considerably less than from shoulder to shoulder.

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HEMANGIOMA OF THE CHOROID

WITH REPORT OF CASE*

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Hemangioma of the choroid is a rare affection of the middle coat of the eye in which the normal choroid tissue is replaced to a greater or less extent by a small cavernous hemangioma in the vicinity of the nerve head, often producing an intraocular tumor lenticular in shape and of considerable size, and usually ultimately ending in degenerative changes in the retina, and secondary glaucoma and all its attendant changes.

The apparent rarity of this tumor of the choroid is attested by the fact that a careful search of ophthalmic literature reveals but twenty-five previously reported cases that have been confirmed by pathological examination. In addition to these certainly diagnosed cases the literature contains reports of five cases in which hemangioma of the choroid was diagnosed clinically, but not confirmed by biopsy. As the diagnosis of choroidal hemangioma offers many difficulties and as most of the pathologically demonstrated cases, including our own, were not diagnosed ophthalmoscopically these five clinical cases (those of Fehr, 1905, second case; Galezowski, 1898; Deyl, 1899; Henderson, 1920; Strader, 1924) are not included in the statistical review of the subject.

The earliest reported cases appears to be that of Leber, 1868, and the latest case that of Sobhy Bey, 1923. These cases have been culled from the literature as follows: German 16, English 3, American 2, French 1, Italian 1, Norwegian 1, Egyptian 1.

*Chairman's address presented before the Section on Ophthalmology and Otolaryngology at the West Baden session, September, 1926.

The diseased condition is probably more common than the reported cases indicate. If all eyes removed for new growths, advanced glaucomatous condition, etc., were sectioned many cases would probably be brought to light; in fact, that is the manner in which most of the twenty-six known cases were discovered.

The cause of hemangioma of the choroid is probably the same as that of hemangioma elsewhere in the body. So far as can be learned from the literature the cases appear to have been congenital. In the twenty-five reported cases twelve (nearly 48 per cent) had hemangioma or vascular nevi elsewhere on the body ranging from a small one only 3 mm. in diameter over the head of the sternum to extensive ones involving one side of the face, and in one instance both sides have been present. Love, 1914, gives an interesting accounting of the possible etiology of angiomas.

The age incidence for the previously reported cases and the present one is:

Birth—10 years.....	3
11 —20 years.....	11
21 —30 years.....	3
31 —40 years.....	3
41 —50 years.....	3½
51 —60 years.....	1½
61 —70 years.....	2½
71 and more years.....	0
Age not stated by author, other than adult	2

As to sex, fourteen cases occurred in males and eleven in females; in one case the sex was not stated.

In ten of the cases (about 40 per cent) the right eye was involved, in fifteen (about 60 per cent) the left eye, and in one instance both eyes, the left eye only being enucleated. The greater preponderance of cases in which the lesion occurred in the left eye is probably due to the small series available for statistical study rather than to any marked predilection for that eye for choroidal hemangiomas.

Five patients (cases of Lawford, Michail, Panas and Remy, Reis and Wagenmann) had injuries to the affected eyes before consulting ophthalmologists. Three of these injuries were blows, one a foreign body, and in one wood tar was sprinkled in the eye. The injuries themselves probably had nothing to do with causing the onset of angioma, but were contributory in bringing about the end results, such as glaucoma.

The tumors as seen in the enucleated eyes are essentially lenticular in shape, following for the most part the natural curves of the eye coats and located about the nerve head. They have been described as the size of a "pea," the size of the crystalline lens, as having dimensions of three to four papilla widths. Those actually measured range from 2 to 17 mm. in diameter, and in

†Fehr's first case observed first in fifth decade and removed in seventh decade.

thickness from 1 to 9 mm. The tumors show for most part a simple cavernous angiomatous structure which replaces the normal choroid. Some authors have described their cases as angiosarcomas, but in the cases reviewed the sarcoma element seems negligible and the impression is that sarcoma being a well recognized intraocular tumor and frequently diagnosed ophthalmoscopically, a few early authors were led into seeing a mixed tumor instead of a simple angioma.

The position of the growths appears to be always near or around the nerve head, as in the present instance. The larger tumors extend from the nerve head to the ciliary body. There appears to be no special quadrant in which the tumor mass is found most frequently.

Fibroid changes frequently take place in the retinal surface of the angioma often leading to bone formation. Of the twenty-five enucleated eyes fifteen (60 per cent) showed a layer of bone along the retinal surface, ranging in thickness from 0.25 to 2.00 mm. Bone formation was not found in our case. Paton and Collins express the view that fibrous tissue on the inner surface of the growth results from chronic lymph stasis and forms the basis on which the bone develops.

Twenty-two of the twenty-five reported cases developed glaucoma; that is, 88 per cent terminated in that condition. Glaucoma is probably the usual end result of hemangioma of the choroid. Several eyes have been removed before the stage of glaucoma under the mistaken impression that the growth seen ophthalmoscopically was a glioma or sarcoma, as in our own case. Of the twenty-two eyes which showed a glaucomatous condition, fourteen appear to have been removed for that condition alone and at the time of removal there was no suspicion of any tumor in the eye. The presence of the new growth frequently causes a detachment of the retina, a condition which has been noted at least thirteen times, as well as in our case, 54 per cent of the cases. One of the clinical diagnosed cases, that of Galezowski, showed the condition of buphthalmus in both eyes.

The subjective symptoms due to hemangioma of the choroid vary from what patients say is a gradual to a rapid diminution or loss of vision to all the subjective symptoms of glaucoma. Apparently the diminished vision is not noticed until the patient passes the first decade. Probably some patients have small angiomas and pass through life without their causing noticed symptoms. Three authors, Fehr, Reis and Salus, record visual fields which showed contraction, as did our own case.

When the media are clear the objective symptoms are the presence of a small tumor in the fundus of the eye and evidence of a detached retina. The detachment of the retina may be partial or complete. In the twenty-five reported cases detachment of the retina was noted in about

half of them, eleven cases. The tumor seen ophthalmoscopically is usually small and flattened and is described as grayish white, bluish white, greenish white, bluish green and bright yellow, never dark like a pigmented sarcoma, and never showing signs of inflammatory reaction. In our own case the tumor mass appeared bluish white about the size and shape of a split pea. In only nine of the twenty-five reported cases was a tumor mass seen, including our own case, making a percentage of thirtyfour. In six of the cases reported a detached retina was seen along with the tumor.

The clinical diagnosis of hemangioma of the choroid has very rarely been made. It apparently was made in only one of the twenty-five cases proved by biopsy, that of Paton and Collins. Five authors, Fehr, Galezowski, Deyl, Henderson, and Strader, have reported hemangioma on clinical and ophthalmoscopic grounds only.

The points on which a clinical diagnosis may be based are (1) the light color of the tumor, that is absence in pigmentation, (2) absence of inflammatory change about the tumor, (3) its almost imperceptible rate of growth, and (4) according to Salus, an enormous widening of the choroidal vessels in the peripheral parts of the fundus. In the late stage, when glaucomatous changes set in and the media are not clear, it is impossible to make a diagnosis. Presence of an angioma about the face might help one to suspect the condition.

If one assumes that hemangioma of the choroid is congenital as appears to be the case with hemangioma of the skin, the condition may persist without inconvenience to the patient through a rather long life time, two cases being reported in the seventh decade. Fehr's first case diagnosed ophthalmoscopically and clinically had been under observation by him for twenty years. During these years vision become diminished and tension slightly increased, and finally secondary glaucoma supervened and the eye had to be removed. Most cases have come under observation when secondary changes are present, or if a tumor has been observed through clear media the eye has been removed without waiting to see the course of the disease.

The prognosis is grave as to sight in the affected eye and saving of the eyeball. Secondary glaucoma has developed in practically all cases in which the diseased eye has been left in. Unlike sarcoma and glioma hemangioma does not produce metastases and thus endanger life.

Treatment consists in removal of the diseased eye. As long as the eye does not show evidence of glaucoma or other changes, and one is sure of his diagnosis, it would seem well to leave the eye in place as long as possible, as was done by Fehr.

CASE REPORT

Mrs. B., age forty-nine, first seen in consultation September 6, 1924.

Past History—Twelve years ago she noticed a beginning dimness of vision in the right eye, at times experienced "maddening pain" through right temple. For the past two years she had been under care of an ophthalmologist who has "treated" her for "cataract."

Present Examination—Eyes appeared normal externally, no injection of conjunctivae, corneas clear, pupils reacting to light. No angiomatic lesions were discernable on face or elsewhere.

Left eye, essentially normal, vision 20/20 with a +0.50 diopter sphere. Ophthalmoscopic examination showed a normal fundus.

Right eye, media clear, vision for lower half of objects. Visual field with Morton perimeter showed absence of vision above the 30° diameter on the temporal side, and above the 180° diameter on the nasal side. Ophthalmoscopic examination revealed a bluish white bulging without pigment or signs of inflammatory reaction. It was seen in the lower nasal quadrant about the size and shape of a split pea. No billowing nor waving motions were seen on movement of the eye. Tension by palpation appeared normal. A tentative diagnosis of detached retina due to sarcoma of choroid was made and patient was asked to return in a month.

On October 4, 1924, patient returned. Tension 35 (McLean tonometer) normal. Visual field more contracted in lower temporal and in nasal quadrants. No pain in the eye itself and only occasionally in right temple. Ophthalmoscopic examination showed essentially the same picture as seen a month previously. Enucleation was advised. After consultation with an ophthalmologist in Chicago, who concurred in diagnosis of sarcoma, the eye was removed. Patient made usual uneventful recovery. The eye was preserved in formaldehyde solution and sectioned by Dr. Mary S. Knight, of the Mayo Clinic, to whom our thanks are due. Half of the eye and some slides were returned and on them the following pathologic report is based.

The material available for pathologic examination consists of the outer (or temporal) portion of the globe essentially circular in outline on its cut surface and measuring about 23 mm. in diameter. The nerve head is not on the segment and the anterior portion is cut below the level of the pupil. The thickness of the hemisphere is about 11 mm. The other half of the hemisphere was imbedded in celliodin and from it sections were cut and stained with hematoxylin and eosin.

In the hemisphere which was not used for embedding there is detachment of the inner coats of the eye except at the ciliary margin and at the pole opposite the cornea, at which place retina, choroid and sclera are all united. Whether the loosening of the coats occurred *in vivo* or was entirely or in part the result of post-operative manipulation, fixation, and cutting cannot be de-

termined. The impression is that it occurred in large part *ex vivo*. At the pole opposite the cornea is a light grayish lenticular shaped mass in apposition with the sclera and the retina. A distinct choroid element between them is practically indiscernable. This lenticular mass has a length of about 10 mm. and a thickness of 2 mm. at its center. It gives the impression of being serous fluid coagulated by the fixing fluid (solution of formaldehyd). Between the thinned caudad edge of this lenticular mass and the sclera is seen a thin (0.5 mm.) reddish brown streak extending caudad for about 5 mm. from nearly the pole opposite the cornea. This narrow reddish brown streak seems to represent the outer edge of the hemangioma of the choroid, the bulk of which was in the nasal half of the globe which was used for sectioning.

The eye in vertical section shows most of the characteristic lesions. Anterior to the ciliary region the section appears normal. The retina is seen detached from the entrance of the optic nerve to the ciliary body. The tumor is seen lying between the detached retina and the sclera from which it is slightly loosened, especially at the base. The hemangiomatous mass extends caudad of the nerve head about 5 mm. and cephalad about 3 mm. The maximum thickness of the tumor is imperceptibly in excess of 1 mm. occurring in the portion caudad of the nerve head. The tumor appears to take origin from either side of the nerve head. It is of comparatively simple structure, being a hemangioma of cavernous type. The blood sinuses are not round for the most part but appear to be compressed in direction parallel with the coats of the eye. The smaller sinuses are more nearly round and have a diameter of about 150 microns, while the largest ones measure from nearly 600 in length to 30 to 60 microns in breadth. None of the sinuses contain thrombi. Many of them are empty, the impression being that they are devoid of red cells because these have dropped out in preparation of the slide rather than that the comparatively few empty sinuses are lymph channels. Very little connective tissue is present in the tumor. Usually the endothelium of each sinus is in direct or almost direct apposition with the adjacent sinus. No bone formation is found anywhere in the sections. Comparatively few pigment cells are present. Almost none occur in the interior of the tumor, they being found along the inner and outer borders of the tumor, as though they had been originally parts of the normal choroid. In the cephalad segment of the tumor, however, and around a rather large blood filled sinus, a considerable number of pigment cells are present.

Caudad of the entrance of the nerve through the sclera there are some dilated vessels and apparent hemorrhage into the episcleral tissue. There is nothing to suggest that this collection of blood is angiomatic in nature. The peripheral portion

of the choroid has separated from the sclera. Marked changes are noticed in the retina in the portion immediately overlying the hemangioma. Vacuolization and swelling are so great that they are readily seen in these portions of the retina. The greatest thickness of the retina in the vacuolated place is 900 microns, while the thickness of the retina peripherally and where it appears normal is 150 microns. In the cephalad swelling of the retina the vacuolas are mostly rounded, the largest measuring 150 microns and the smaller about 15. In the caudad swelling in addition to the one large elongated vacuole having a maximum width of 65 microns and a length of several millimeters, there are rounded vacuoles ranging in size from about 20 to 130 microns in diameter. At the extreme periphery of the retina cephalad and caudad just before its attachment to the ciliary body are a few small vacuoles varying in size from 25 to 50 microns. The vacuolization takes place between the outer and inner molecular layers. Usually where it is most marked and where the retina is most thickened the normal arrangement of these two layers is much interfered with, the nuclei reduced in number and scattered and the layer of the rods and cones not distinguishable as such.

These changes in the retina are not accompanied by inflammatory cells, nor are inflammatory cells found in the hemangioma itself. The conspicuous fold enclosing an apparent vacuole in the caudad portion of the retina midway between the ciliary body and the nerve entrance is apparently an artefact due to looseness and folding of the retina, as that apparent vacuole is between the nerve fiber and ganglionic layers and is not between the molecular layers, as is the case of the other vacuoles.

SUMMARY

What is believed to be the twenty-sixth case of hemangioma of the choroid, as demonstrated by biopsy, is reported.

An analysis of this and 25 cases previously reported in the literature is given, including the history of the disease, its etiology, pathology, symptomatology, course, prognosis and treatment.

Hemangioma of the choroid appears to be a rare intraocular tumor, but probably systematic microscopic examination of all enucleated eyes would show it to be more frequent than reports indicate. It is most frequently observed during the second decade, but may occur at any age. It does not appear to grow rapidly but ultimately causes detachment of the retina and glaucoma. The tumors observed have not been invasive in character nor caused metastases. Diagnosis from other intraocular tumors is difficult but possible. Treatment consists of enucleation.

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SOME PROBLEMS IN MEDICAL EDUCATION*

B. D. MYERS, M.D.

BLOOMINGTON

One of the most powerful and influential committees of the American Medical Association is the committee on medical education.

Since you men whom I am addressing are members of the A. M. A., and since you, through your representatives, elect officers who appoint committees who make reports that are approved and become policies, I have no hesitancy in bringing to your attention certain problems which grow out of action of the council of medical education of the A. M. A., and soliciting your aid in their solution.

About twenty years ago the council on medical education of the A. M. A. began to function. For twenty years I have attended their annual two-day meetings, have had papers before that body on a number of occasions, and have been in

*Address presented at the annual session of the Indiana State Medical Association, West Baden, September 22-24, 1926.

intimate touch and entirely in sympathy with council activity.

With no authority to establish standards and with no power except the influence of publicity of their findings, they have worked a beneficent revolution in medical education.

They began by making an inspection of all medical schools. Their first report was given no publicity. Schools were informed of their findings and given opportunities to correct shortcomings. Many schools the country over, with a clear vision of what publicity would lead to, began reorganizations most of which led to amalgamations with state supported or heavily endowed universities.

The classification of medical schools is based on careful inspection. Data relating to each school is grouped under four general heads as follows:

1. **FACULTY.**—Number; qualifications (standing in profession, evidences of special training, teaching experience, etc.); research ability; efficiency; proportion of time to teaching; proportion to student enrollment; organization of departments; completeness of department staffs, including dieners, employees, etc.; esprit de corps.

2. **PRODUCT.**—Qualifications of students admitted; student organizations; esprit de corps; records of graduates before state and national boards; research; articles written; excellence as teachers; membership in medical organizations; reputation in profession; other evidences of character of training; reputation of college.

3. **ADMINISTRATION AND SUPERVISION.**—Curriculum; grade of course; sequence of subjects; arrangement of subjects in class roster and by departments in annual announcements; completeness of curriculum. Division of students in sections, ward classes, etc. Efficiency of routine. Faculty meetings. Supervision of entrance requirements, of teaching in college and in dispensary and hospital. Records; entrance requirements; class grades; promotion of students; dispensary and hospital records; attendance of teachers and students; conditions, etc.; completeness. Budget; use made of funds; proportion to salaries, etc.

4. **BUILDINGS AND EQUIPMENT.**—College building, including class rooms, laboratories, library, museum, storage rooms, animal houses and their contents. Dispensary; rooms used for; accessibility; number and regularity of staff; quantity and use of clinical material; character of histories and records. Hospital; accessibility; ownership or control; quantity, variety and use of clinical material. Other equipment. Apparatus Funds: in addition to students' fees; endowed chairs, fellowships, etc.

All will admit these items constitute a reasonable basis of classification and you will be proud to know that the Indiana University School of Medicine was placed in the highest classification

the first time a classification was made and has been in that position at all times.

Great changes have occurred in the past seven years, since 1919, introducing grave problems, a few of which I shall present to you as your help is needed in their solution.

The number of medical students in the United States had decreased from 28,000 in 1904 to 13,000 in 1919. Since that low enrollment there has been an increase of nearly 1,000 per year to a total enrollment of nearly 19,000 last school year.

The Indiana University School of Medicine has enrolled its full share of this increase. Last year we were sixteenth in total enrollment and twelfth in freshman enrollment among medical schools of the United States. In 1919 our total enrollment was 200, the freshman enrollment was forty-three. In 1926 our total enrollment was 376, not counting special students and graduate students, and the freshman enrollment was 116. Our total enrollment increased 88 per cent while the number of medical students in the United States increased 45 per cent. Our increase has been nearly twice as great as the country as a whole. The freshman enrollment in 1926 was 2.7 times that of 1919. Yet we have the same laboratory space, approximately the same library appropriation and essentially the same teaching staff.

We need, very greatly, increased appropriations for buildings and staff and library.

Problem No. 2 arises from the fact that we had 750 fewer doctors in Indiana in 1925 than in 1914, and during those years (1914-25) the state increased one-third of a million in population. Ten years ago there was one doctor to 558 people; today, one to 720 people. This means that each doctor today must attend 162 more people than ten years ago, an increase of 29 per cent. In the seven neighboring states, Ohio, Illinois, Michigan, Wisconsin, Kentucky, Minnesota, Iowa, there is an average of 722 people to each doctor. Indiana, with 720 people to each doctor, is almost exactly an average mid-west state in that respect.

But of the 4,251 doctors in Indiana today, 1,662 are fifty-five years of age or over; 1,106 are sixty years of age or over. The next ten years will, therefore, take a relatively heavy toll of the existing medical profession of Indiana. The loss will probably not be less than one thousand.

Are we prepared to add 1,000 new graduates in that time?

Five hundred and three Indiana boys were studying medicine somewhere in the United States last year, more than two-thirds of these in our own school. Less than 80 per cent of medical students ever graduate. Eighty per cent of 503 equals 400, the number of those now enrolled who will probably graduate. This is an average of 100 per year. So it would seem that in ten years the 1,000 lost by death will be replaced by new

graduates. But meantime we shall have a continued increase in population of about 400,000, and this will increase the number of patients per doctor by 94, which added to the 720 at the present time, will give 814 people per doctor in another decade. Essentially the same conditions exist in neighboring states. The problem is, therefore, not local, but general.

Now the question is, how long may this situation safely continue?

Before we answer this question let us face another fact.

A year ago there were about 350 applications for matriculation in our freshman class in medicine. This year we made out a card for every bona fide applicant for freshman matriculation. So we have a reliable record of 389 applications. This does not take into account some scores of inquiries that would have developed into bona fide applications had we not been forced to reply to all inquiries since July 15 that our class was full to the limit, with a waiting list besides.

This condition exists in all good schools.

This is not a guess but a known fact. Every school in America is reporting to me each bona fide applicant by name, a card for each applicant, with notation of disposition, acceptance or refusal, and if refused, why refused. As chairman of a committee having this study in hand I will report at the meeting of the Association of the A. M. C. in late October just how many applications for matriculation in medical schools there have been this year, how many make multiple application, how many really prepared men, if any, fail to find a home in some good school, etc.

May we not, therefore, summarize as follows:

Problem No. 1. We have given a rapidly growing population and a medical profession fixed or declining in number. This, of course, is a condition which cannot safely continue indefinitely.

The problem is not now acute, but since it takes seven years beyond high school graduation to produce a doctor of medicine, the problem demands and must receive immediate consideration, and since the condition is general we must seek a solution for ourselves. The obvious one solution of this problem of growing disproportion between number of doctors and number of people is an increase in number of medical graduates. But this necessitates an increase in the number of students in our medical schools, which presents our second problem.

Problem No. 2. That of increasing enrollment in medical school is a necessary sequel of Problem No. 1. Its solution depends on (a) whether or not additional students seek enrollment, and (b) whether or not facilities are present to care for them.

Since the number of applicants for matriculation in all high-grade medical schools far exceeds

the capacity of schools as at present organized, it is evident that the problem of increasing medical enrollments is merely a matter of increasing capacity to care for those already clamoring for admission. Fourteen fully eligible students are already enrolled in our freshman class for next year, 1927-28. This condition also is general. It cannot be solved by sending more of our boys to other states, for those other states have the problem of caring for their own boys. On September 18th the *Journal of A. M. A.* published a list of only twenty-three available places for freshman matriculation in the United States, six of these in Woman's Medical College. So again we must solve our own problem.

But to increase laboratories, library, and teaching staff requires increased appropriations, which introduces our third problem.

The solution of Problem No. 3, that of increased appropriations, will make the solution of Problems 1 and 2 easy, almost automatic.

Funds may come from private gifts or from the state, through taxation.

Private individuals have been remarkably generous. The gift of the Robert W. Long hospital, of the James Whitcomb Riley Hospital for Children, of the Ball Nurses' Home, of the Coleman Hospital for Women, on a combined site of fifty acres in immediate proximity to the Indianapolis City Hospital, and the Central Hospital for Insane, in both of which we enjoy teaching opportunity, all these contribute to a rapidly developing great clinical center.

But buildings for laboratory instruction both at Bloomington and Indianapolis are inadequate for increased enrollments and it seems fair to ask the coming legislature for aid.

It is the program of Indiana University to ask the coming legislature for one and a half million dollars increase in appropriation for buildings, equipment, maintenance, library, and staff. This is an insignificant amount for a great state like ours. It will cost the man who pays tax on \$10,000, \$2.80 per year. It will cost the poor man who pays tax on \$1,000 assessed values, 28 cents per year, the price of a movie.

The active support of the medical profession of Indiana for the university's program for increased maintenance is very earnestly solicited.

The average life rate in England 300 years ago was twenty years.

The average life rate in Ceylon today is twenty-four years.

The average life rate in the United States today is forty years.

The average life rate in Indiana today is forty-two years.

The average life rate has been doubled, and the average number of adult working years has been increased tenfold.

Physicians are to a great extent directly responsible for this increase in average life, and indirectly responsible for what is done with this increase in average number of working years. We find that:

Savings accounts in Indiana increased \$45,000,000 in 1925 over 1920.

Building and loan accounts in Indiana increased \$114,000,000 in 1925 over 1920.

Life insurance in force in Indiana increased \$561,000,000 in 1925 over 1920.

Life insurance premiums in Indiana increased \$21,000,000 in 1925 over 1920.

These savings we conclude are in no small part attributable to *the increase in average number of working years*, which the medical profession of Indiana has given the people of Indiana.

I know of no group, therefore, that may more justly ask for more adequate support of higher education than the medical profession.

GUIDANCE IN THE MILD MENTAL CASE*

PAUL S. JOHNSON, M.D.

RICHMOND

In referring to the mild mental case, no definite clinical classification is in mind; it is likewise unnecessary, for our purposes, to consider just where guidance constitutes treatment. The imposing thing is the large number of mild mental cases which is drifting into the hands of the cultist. We should be duly impressed with the fact that many of them recover in this unorthodox environment. It seems that the average physician develops a very specialized reaction when confronted by a patient with mental disease, and as soon as he feels that the condition is essentially in that class, he looks about for the nearest exit; often covering his retreat with the statement that he knows nothing about insanity. This statement is objectionable for the most excellent reason that it is untrue. The attending physician not only knows much about insanity but usually knows more about the particular patient manifesting the mental symptoms than the next advisor will ever know. Information concerning the patient has more value in determining proper guidance than technical knowledge of mental disease.

With all the knowledge concerning the patient in possession of the attending physician, on account of his long and close contact, it still is very necessary that a careful review of the personal and family history be made. The doctor not only needs the facts fresh in his mind but it is quite important that the patient realize that the management is being planned with all these things considered. Then it occasionally happens that surprising results develop in history taking. The

instances about to be cited are, perhaps, exceptional but are actual occurrences nevertheless. An attending physician who had known his patient for years received this additional information while listening to the consultant develop the history: that the patient's mother had been married twice, that the patient was a child of the first husband, who had died in a hospital for the insane after her mother had divorced him; and that this depressing information was unknown to the patient until during her first pregnancy. And, further that the so-called "nervous breakdown," suffered by the patient at the time, and during which she was attended by this same doctor, was accompanied by suicidal impulses, the patient even going so far as to plan the event. In another instance the physician in charge reported the history negative for lues when the patient's mother had aborted four of her seven pregnancies and the father had died after a prolonged and very suspicious illness. Nor are such oversights confined to the hurried general practitioner. One of the leading medical clinics of our country failed to find out that the father was epileptic and that a sister had passed through three recurrences of chorea.

With the carefully taken history and a thorough physical examination before the doctor, he is next confronted by the question of what he shall tell his patient. The Rt. Hon. Lord Dawson of Penn., in discussing what should be told the patients with damaged hearts, said that at times the truth can be best served in partially concealing it. While I am ready to admit that this is, perhaps, just as appropriate for the mental case as it is for the cardiac patient, I must insist that the absence of a reasonable degree of frankness is much more common in the case of mental disease. The attitude of relatives and close friends is usually such as to invite the attempt at pretense in this matter. And, unless the patient is very lacking in insight, it is quite generally a futile attempt. The patient is likely to be fully and painfully aware of the deceptive practices. It not infrequently happens that a patient thus managed will show prompt appreciation of frankness when a change to such a policy is made. The doctor in charge is particularly embarrassed and handicapped if the patient detects such dealing on his part. To attempt to direct the management of such a patient, without letting him know that you regard him as mentally ill, is almost sure to result in the loss of his confidence and consequent failure.

When trying to get before the patient your conception of his condition, it is not uncommon for him to ask if you think him insane. And, it is usually undesirable to make an affirmative answer even though you so regard him. It is better to explain that the term insanity is so variously defined and so loosely used to cover a great variety of conditions, that you can give him a much more accurate understanding of his departure from

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normal by citing his peculiar situation. The education, insight and interest manifested by the patient determines largely the degree of detailed discussion which will prove helpful in enlisting co-operation and enthusiasm for the plans to be followed.

The course to be outlined must necessarily take into consideration all the facts assembled. To say plenty of good nourishing food with proper rest and exercise is by no means sufficiently detailed.

A special diet, and by this is meant a diet special to the particular patient, is extremely important. It is often encouraging to the patient to note that he is able to get back to the foods he used when he was enjoying good health. Past and present dietary practices should be the subject of careful inquiry and the outlined diet should take into consideration particular food predilections. Should objections be raised to the dietary thus planned, after it is inaugurated, they should be fully analyzed and unless very valid reasons for change are shown in such analysis, no alterations should be permitted. The handling of this feature often furnishes a very valuable means of applying some needed mental discipline.

The practices as regards exercise, both mental and physical, should be under the very immediate direction of the physician; and this is so largely true because of the frequent changes necessary in this particular feature of guidance. The ideal sought is to begin with exercises well within the possibilities of the patient and gradually increase them as improvement occurs, but the latitude between extremes in this matter is so narrow that especial care is necessary. When it is possible to judge thus accurately it is well to develop desire on the part of the patient and then fall just short of permitting this amount. It is usually much better to meet arguments that more exercise is desirable than to try to convincingly present discussion which will prove a whip.

The subject of rest is probably the most difficult feature of guidance; and this is true because it embraces both mental and physical rest. Co-operation in securing physical rest is made much easier if specific and detailed instructions are given just as in the matter of diet. The mistake of permitting too much rather than too little is the common one. When complete rest is considered desirable, it is better not to permit the patient to feed himself; and medicine to assist in obtaining the relaxation necessary to make the patient comfortable under these circumstances is apt to be considerable. The duration of such a period of rest is usually brief and the time for its termination not usually difficult to determine. A few days' slight change from the rigid plan of complete rest will direct us in further lifting of restrictions or to return to former practices. The results of this trial and error method are quite generally satisfactory and the blunders resulting not apt to be very serious.

With our efforts to secure mental rest our problem is very much more difficult, and is very generally a subject which cannot be profitably discussed with the patient. It is in the interest of mental rest that a change of environment is to be considered. It is always desirable to secure recovery without removing the patient from the surroundings in which he must necessarily live after his illness; there being less danger of a breakdown during the early days of resuming normal activities. But to secure the desired mental rest, it at times requires a change of environment, including the omission of all members of the immediate family. The patient should never be led to feel that he is making a change to escape an intolerable situation built up in his own field of fancy. To allow such a feeling to be developed is usually to pave the way for other similar situations with an endless series of jumps taken with the view to escaping them. It occasionally happens that, in spite of carefully directed efforts along the line mentioned, the patient develops this inadequacy of adjustment; and in this event his care in an institution is imperatively demanded. Even though the institution is in more capable hands than those in charge of the patient, it does not mean that the attending physician's duties are fully discharged until he has delivered to those about to assume charge a very complete outline of the findings and plans followed. The chief value of such co-operation lies in the fact that the institutional care can be made very obviously to follow the lines laid down by the attending physician, and in so doing make more effective the measures necessary to complete the adjustment on the patient's return home.

As regards rest and exercise, it very generally happens that one or the other is disliked by the patient. Fortunately, however, it is rarely true that both are distasteful. This is the situation in which we are able to use one to enforce the other. It makes no difference which is preferred so far as the principle to be applied is concerned. To fall just short of the amount of exercise desired, if that is the preference in a particular instance, and insist that more will be added when we are able to bring up a better showing on the rest side of the balance, illustrates the principle referred to; and it works equally well in reverse.

Throughout any discussion of guidance or treatment of the mentally sick, the subject of mental discipline is frequently presenting itself; and this is as it should be, for the same is true in the actual direction of the patient. The personalities of the attendants, medical and others, needs consideration as well as the needs of the patient. If the nursing and general care is necessarily in the hands of relatives whose chief concern is the display of their own misguided enervating sympathy, proper direction usually means a very closely confidential talk with the patient with the view to offsetting such influence. This can, at

times, be accomplished, but is a very difficult handicap, and more often results in the necessary insistence on a change which will eliminate the offending parties. If it is possible to secure the undisturbed effort of those accustomed to following doctor's orders and faithfully reporting results in the care, the problem is easier but will not still take care of itself. Again it is necessary to insist upon detail and with the responsibility resting on the medical attendant. A nurse who shows the slightest tendency to initiate and execute ideas of her own regarding policy, very definitely proves herself unfit. It likewise indicates a lack of experience, because her effectiveness is almost entirely lost in such practice and her embarrassment is sure to follow. The doctor's orders should be divided into two classes; those to be delivered to the nurse in the presence of the patient and those to be discussed with the nurse only, and the same order should be followed in the nurse's reports of progress. This arrangement of reports and orders furnishes an opportunity for blunder if care is not used in discussion before the patient. This can usually be successfully handled if the nurse sees the doctor outside the sick room before he visits the patient and again after he leaves, and the pre-visit talk enables the doctor to make suggestions for the report of the nurse to be made after going before the patient.

With the team work of the attendants definitely arranged, the patient's part in the program should be made very clear to him. In exceptional instances only, should definite statement of the progress expected be made. It should be impressively emphasized to the patient, when his insight permits, that favorable changes will depend so largely upon his ability to co-operate that prediction is impossible. In this way, responsibility of a very stimulating character is rested on the patient and paves the way for calling attention to his accomplishments as progress is made. For the attending physician to be a little slow in admitting that favorable progress is being made is at times desirable. By this practice we may succeed in placing the patient in the position of trying to convince his doctor that he is better; and whether or not this is capitalizing the grain of merit that was "Couism" it has its value. In proper methods of guidance we have an aim beyond the matter of again placing the patient on a normal mental plane; the additional hope being that he shall remain there. This constitutes the chief reason for spending the necessary time and care to acquaint the patient with the character of his departure from normal, the factors contributing thereto and the part he played in bringing about the favorable result. Too often the patient is dismissed with the vague general advice to avoid worry and hard work and with the prediction that he will be all right. It is very much more helpful to settle the patient into some position entailing such work as

he can well do and then encourage application to the task. Worry, as ordinarily understood, is given a much too prominent place in discussing mental alienation. If it be defined as the mental reaction resulting from maladjustment to a given environment, it is obvious that we are considering the departure from normal itself and not the cause of the departure. The absurdity of asking a patient not to worry is at once apparent, as it is no more helpful than advising him not to permit his mental disease to recur. Advice, not to work too hard is all very well except for the fact that it is very generally interpreted to mean, the less work the better, and this is objectionable. Confirmation of recovery and insurance against recurrence is best obtained by the proof in an actual test that the patient can work.

One feature of guidance which is likely to be omitted from a discussion of methods and measures is the dealing with the relatives of patients. But while it may be omitted from such discussions it most certainly presents a very practical problem. A very able psychiatrist once said, "Let those who doubt that heredity plays any part in mental disease, deal with the relatives of the insane." The discussion of outlook and claims of progress toward recovery should be very tempered and moderate. To over-reach in an effort to please is always embarrassing and tends to shake confidence, and falling absurdly short of the justified position develops discouragements which may reach and influence the patient. About the only general statement possible on the subject is to avoid misunderstandings as to what you really say and bear in mind that those addressed are relatives of your patient.

It is obviously impossible for so brief a treatment of this subject to deal with the great variety of symptoms and situations which develop in handling the mental case, mild or otherwise, but it is my belief that average ingenuity applied along suggested lines will improve the medical service to a somewhat neglected class.

DISCUSSION

DONALD E. BELL (Newcastle): The doctor's statement that many mild mental cases drift into the hands of the cultist largely through our own neglect is, unfortunately, very true. Two things are necessary to prevent this: the interest of the physician in the patient and the confidence of the patient in the physician. If confidence is needed in a patient with a physical disease, it is still more needed in one with a mental disease. It is certainly not instilled with the advice all too commonly given for the patient to "pull himself together," and that if he "would only think less of himself and more of others he would get well." Few patients, if any, wish to be ill if they can help it. To tell a patient to get rid of his symptoms in such a manner is equivalent to telling a patient with a headache to cure himself by saying he will not have it.

As Dr. Johnson says, the taking of a careful history and the making of a thorough physical examination are absolutely necessary. In taking the history the patient should be encouraged to give a detailed account of his obsessions and thus avoid the necessity of constantly referring to them later. If the patient has delusions, the physician should listen attentively. He should not agree or appear to accept the delusions, nor should he openly contradict them. The latter is not only useless but may bring on an excited attack. Patience is very necessary, as the impatient physician not only wearies himself but does the patient little or no good. The taking of infinite pains and interest in the case has the double value of not only aiding in the diagnosis and guidance, but also in infusing the patient with a sense of confidence.

It was not Dr. Johnson's purpose to classify the different mental diseases and their treatment. It might be said in a general way that there are three classes: (1) The man who is mentally ill and wishes to be treated. (2) The confused or passive person. (3) The psychotic who is hostile to all treatment. If the symptoms of a physical disease vary, those of mental disease are still more complex. Therefore, any plan to be pursued must be intensely individualistic. It must include both physiotherapeutic and psychotherapeutic measures. It may proceed along the general lines of, first, the removal of the causal factors as far as possible, both those producing exhaustion and malnutrition of the nervous system and those producing worry and anxiety; second, the restoration of the general health to the best possible condition; third, a change in the mode of life and possibly the environment.

The essayist has very adequately discussed the advisability of a change in environment in securing mental rest. Physical rest in bed is advisable if the sleep is bad, the weight falling off and the pulse increasing. The disadvantage of both these procedures is, as Dr. Johnson pointed out, that the patient is taken entirely away from his work and when he returns he may have a relapse. This results in loss of confidence and apprehension. In any case the amount and hours of work should be reduced. Exercise should only be commenced when the patient is recovering, and should be regulated by his pulse, weight, and sleep. The diet in general should be liberal, varied and tempting.

All the efforts of the physician may be brought to naught by the wrong kind of nursing care. The selection of the proper attendant is often a very difficult matter. One who is not a member of the family usually gives the best co-operation. First of all, she must carry out the physician's instructions faithfully and without modification. Tact is essential. Pity, intimacies and over-sympathy are ruinous to success. What is needed is a calm, quiet, cheerful and encouraging attitude both on her part and that of the physicians.

LARUE CARTER (Indianapolis): The question of the care and guidance of the mild mental cases is one which confronts not only the psychiatrist but the general physician, because it is to him they usually first report and he has his round of grief with them before they consult a specialist. As Dr. Johnson said, we do not attempt to classify these cases except from the clinical symptomatology. The different psychoneuroses, mild psychoses, exhausted and anxious states, present much the same symptomatology even though they have a different pathology, a different etiology and a different fundamental psychology, and the treatment is similar in all.

Given a patient who has reported for examination and in whose case a tentative diagnosis has been made, the first question that comes up is how much are we going to tell the patient himself, and how much will we tell his relatives. It goes without saying that at least one responsible relative should be told the whole truth, and oftentimes it is well to tell the patient the exact situation without reservations. At least the case should be discussed fully and frankly with him because when once he suspects deception he loses confidence in his physician and others who have charge of his case. These patients often have an uncanny way of misconstruing things. They go to different physicians and are told the same thing under different phraseology and because of this they think they are told something different and lose faith in all the doctors consulted.

Where shall the patient be treated? Shall we try to treat him in his home as an ambulatory or a bed patient, or shall we send him to some neuro-psychopathic hospital, or to some rest cure or health resort? The care and guidance of these patients is often a sociological rather than a medical problem. We know where and how they should be treated to bring about a maximum of improvement, but often it is financially and socially impossible for the patient to do this and so we have to make a compromise in our treatment. It becomes necessary to modify our treatment to meet his economic status.

As to the selection of a proper nurse, I wish to say in these cases the nurse will spell success or failure. It is difficult to say just what the qualification of a psychiatric nurse should be, but she should be an individual with tact, with firmness, with optimism, and of equal intellect with the patient. We have many nurses who are well trained in surgery, obstetrics and general medicine, but sometimes in cases of this type they are absolute failures.

The next thing is the question of rest and recreation. If we have a tired, jaded body from misdirected or excessive effort we put that body to bed and rest it. If we have a mind that is tired and worn to an abnormal degree it should likewise be at rest. The interrelations between the body

and mind are such that to rest the body we rest the mind, so we put these patients to bed with pleasant surroundings, mild sedatives if necessary, and let them rest and sleep. In a short time, however, the question of exercise and recreation comes up, and we are called on to outline a program for this. I think we should never prescribe exercise and recreation unless it is productive. It is a fine thing to put a man at a rowing machine and have him pull on the oars for half an hour; but at the end of that time he is at the same place from which he started; he has accomplished nothing except physical exercise. But if we send him in a row boat with a definite mission to accomplish he returns with the feeling that he really has done something. He has not only had physical exercise but mental gymnastics as well. In selecting diversion and exercise select something productive. Just to tell a patient to take a walk is not enough. Tell him to play golf if it is competitive, but just to knock the ball around is not sufficient.

Dr. Johnson did not go into the medical treatment. Electro-therapy, hydro-therapy, radio-therapy, etc., all have their place, but each individual case must be a law unto itself, and these forms of treatment must not be indiscriminately prescribed.

PERRY C. BENTLE (Greensburg): This subject has always been on my heart, the relation of the physician to his public. First, I believe a physician has to stand for something in his community if he expects to accomplish the best with his patient, for the patient looks to him for the most valuable thing that is ever coming to him, and that is his health. If you do not believe this, go down in health yourself and see how hard you dig to get back to that wonderful thing known as health. Let us not tell our patients anything we cannot make good. Let us be honest with our patients and their families, and let us not put our service on a commercial basis—no, never. If you are going to look through two dollars to practice medicine, the quicker you quit the better. That is why the chiropractors and the osteopaths are ranking along with us, and we may blame ourselves.

First, stand for something in your office. Let your patients know you stand for something in your community, and you will have no trouble with the patients for they will have respect for you. When patients come to us for the most valuable thing they can ever have, let us be square with them. Let us give the patient the time necessary for a thorough understanding of his case. Whether he has a small or a large amount of money should make no difference to you, if you are to make a good doctor. You will surely be repaid, even financially. It will do no harm. Each patient must have a careful diagnosis, and you must give him some time. It will help you first, and next the patient. If there is

anything in you always give it to the patient. Take time for rest to keep yourself in good condition. Be a physical physque in your community, and give each patient the time he needs. Don't call the patient back to your office until you can give him the necessary time, and use psychotherapy in the proper way.

I believe we can do much for the medical uplift of the medical profession in Indiana if every man will say: "I will give every patient who comes to me the best I have; I will go away for a rest so as to give them my best." If we will do this we will be able to help the patient who is mentally affected, or any other way affected, and I am sure the medical profession will be better than ever in the past if we will do these things ourselves.

PAUL S. JOHNSON (closing): I will close with this thought—that there is in your practice and mine, patients with mental disorders who need our attention, and if they fail to get it a large percentage will drift into the hands of quacks and theorists. I want to stress that fact. As a consultant in that field, I can work much better with you than with the other type of practitioner.

FAILURE OF X-RAY TO DETECT FOREIGN BODIES IN THE EYE

FRANK A. MORRISON, M.D.

INDIANAPOLIS

In view of the almost uniform belief in the infallibility of the x-ray in the detection of foreign bodies in the eyeball, a report of five mistakes in the practice of one person in a comparatively short time may be of interest. In every case cited the roentgenologist was a man of first class ability and the reflection, if there be any, is not upon the operator, but upon the method. The cases are reported in brief.

Case 1. In a note to me from an oculist of international reputation it was stated that the patient, a workman in a steel works, had been pounding a piece of hot iron and felt something fly into the eye. He was sent at once to the oculist in question, who in turn requested an x-ray. The roentgenologist reported absence of any foreign body. Not being satisfied as the clinical symptoms indicated differently, the oculist asked for a second examination. The report was the same. The patient desired to return to this city, his home, and in the letter which he brought from the oculist to me the latter reiterated his opinion that notwithstanding the x-ray report he felt there must be a foreign body in or about the eye. The mass of steel similar in size and shape to the finger nail of the little finger was found lying in the orbit, closely applied to the roof and extracted with the magnet.

Case 2. This man stated that over twenty years previously he consulted a well known oculist for a supposed foreign body in the right eye. An

x-ray was ordered and taken. The report was negative. The eye healed slowly and in the subsequent years was subject to repeated attacks of inflammation for which he was treated by several oculists, and on at least two occasions had x-rays taken. The reports were always negative, and the patient remained under the impression the attacks were due to "colds." At the time he came under my observation he was having one of these "colds." The foreign body, a piece of steel, was located at the inferior nasal quadrant just behind the root of the iris, and extracted.

Case 3. This man, a laborer, was sitting alongside a railroad track when a passing train exploded a signal torpedo. He was hit in the left eye which was so badly lacerated that immediate enucleation was advised. Owing to the patient's request that the globe be preserved, if possible, an x-ray was taken. The report was "a large foreign body about the size of a large tack in the vitreous." The enucleated eye showed nothing except vitreous filled with clotted blood.

Case 4. A workman in a stone quarry struck a stone with an iron pick. He felt something fly into the left eye. The cornea was badly lacerated. Magnet reaction was negative. He was sent for x-ray examination and the report was "no foreign body in the eye." A second examination incident to dressing the eye after the x-ray report revealed the presence of a piece of sandstone one-eighth of an inch long and about one-sixteenth of an inch wide imbedded in lens matter. This was removed by the forceps through the wound of entrance.

Case 5. A machinist reported he had been hit in the right eye five days previously by what he supposed was a piece of steel. There was little pain, but such pain as he did have was getting worse. The magnet gave a positive re-action at the upper temporal quadrant about eight millimeters from the corneal margin. The x-ray report was "no foreign body in the eye." The magnet repeatedly applied at the point of maximum reaction withdrew a small needle-like piece of steel that had apparently perforated the sclerotic and was lying partly inside and partly outside the globe.

As many malpractice suits are based upon the question of foreign bodies in the eye the short report of these five cases occurring within a limited time in the practice of one person may be of interest.

DELAY AND ITS CONSEQUENCES IN
ACUTE APPENDICITIS*

D. F. CAMERON, M.D.
FORT WAYNE

In view of the fact that in the last publication of vital statistics in this state there were reported by its physicians nearly 400 deaths from appendicitis

in one year, not to mention nearly 100 deaths from simple peritonitis, it is evident that there still remains some medical soil which is in need of seeding or reseeding with the facts concerning this disease. Any review of recent literature on this subject will show that the operative mortality for simple appendicitis is much less than 1 per cent, and that practically all deaths occur among those in whom the appendicitis is complicated by the presence of infection into adjacent tissues. This condition almost invariably means that the patient is the victim of some one's neglect, for the history given nearly always covers an interval of a day or more preceding, during which the diagnosis should have been evident. Altogether too often in such cases the correct diagnosis has indeed been made, and still there has been a delay in proper treatment.

To emphasize the danger in such delays and the various sequelae besides death of the patient which may result, the following analysis of my own cases is given. Among 132 patients who were operated on and found to have an acute infection of the appendix, there were thirty-seven with either an abscess or a definite peritonitis, local or general, complicating the appendicitis, an incidence of 27 per cent. There were no deaths among the ninety-five simple cases, although a number of these were sufficiently advanced that drainage for a short time was employed.

Among the thirty-seven with the infection already beyond the appendix, five died, a mortality of 13.5 per cent for this group, or 3.8 per cent of total number of cases. It may be stated here that with one exception I advised immediate operation in each instance. The one exception was a five-year-old boy not included in this group, who was so evidently in extremis that operation was not advised. He died two hours later, and a local examination revealed a ruptured appendix and a general peritonitis. The five post-operative deaths may be listed as follows:

	Sex.	Age.	Cause of Death.	Days Between Operation and Death.
1.	M.	58	Subdiaphragmatic abscess	60
2.	M.	9	General peritonitis	6
3.	M.	12	General peritonitis	7
4.	F.	24	Subdiaphragmatic abscess	48
5.	F.	13	General peritonitis	1

Many of the thirty-two surviving patients of this group had a more or less stormy convalescence from the following additional complications:

Complication.	Number.	Remarks.
1. Intestinal obstruction	5	Enterostomy required in two.
2. Fecal fistula	3	Closed spontaneously.
3. Empyema, embolic	1	Thoracostomy.
4. Cholangitis, jaundice	1	
5. Post-operative hernia	1	No doubt several yet to follow.
6. Ectopic gestation	1	Five months after extensive cellulitis involving appendix caecum and right tube.

All of the thirty-two were subjected to a much longer and expensive stay in the hospital than the

*Presented before the Section on Surgery of the Indiana State Medical Association at the West Baden session, September, 1926.

average, and many of them on discharge still showed the marked loss in weight and strength which accompanied their serious illness.

The death rate and incidence of complications in the series here reported is in no wise unusual. Recently Gatch and Durman (1) reported on 262 cases, of which 78.2 per cent were complicated by infection into adjacent tissues. There were no deaths in the simple cases. Of the complicated ones nineteen died, a mortality in the latter group of 9.2 per cent.

Beekman (2) in reviewing 145 cases of acute appendicitis in children at the Bellevue hospital reported eleven deaths, all among those in whom already there was either an abscess or a spreading peritonitis, a mortality of 11.3 per cent of the ninety-seven complicated cases. There were no deaths among the simple cases.

Deaver and Magoun (3) report a 5 per cent mortality in a series of 5,488 cases, but with a lessing mortality in later years, due in great part according to the authors' view to their adoption of the Ochsner regime of delayed operation in late cases. In this article, however, the authors do not differentiate the simple from the complicated cases, so no definite conclusions as to mortality can be drawn. They do report eight deaths, or 13.5 per cent among fifty-nine appendiceal abscess cases in the year 1918, but ascribe this increased mortality to the influenza prevalent at the time. The data which they give would not justify any conclusion as to the efficacy of the so-called Ochsner treatment, for their diminishing mortality might easily be explained by the presence of a greater relative number of uncomplicated cases. In the absence of data to the contrary this would be a very reasonable explanation.

Warnshuis (4) compiled results from various hospitals and found an average mortality of 4.23 per cent in acute cases and 1.68 per cent in chronic, but again this is not the type of report which places the facts in the best light. It does not differentiate the simple and complicated acute cases. Such a differentiation almost invariably shows that the latter group furnishes the deaths.

Willis (5) in a review of mortality of various surgical diseases found an increasing mortality from appendicitis in recent years, and it now exceeds the combined mortality from ulcer of the stomach and duodenum, gall stones, diseases of the pancreas and spleen, goitre, ectopic pregnancy and salpingitis and pelvic abscess.

And in our own state the last published vital statistics show that in deaths per 100,000 due to infections, appendicitis is surpassed only by tuberculosis, pneumonia, influenza and enteritis in infants.

Guerry (6) in a large series of his own cases reports a death rate of .15 per cent in simple acute cases, .7 per cent in ruptured or abscess cases, 8.2 per cent in diffuse peritonitis. He attributes much of his low mortality to the Ochsner

treatment in late cases, but adds that "Occasionally the Ochsner method has been supplemented by simple incision and drainage under local anaesthesia to relieve absorption from pus under pressure."

The outstanding facts brought out in the reports are.

1. The mortality after appendectomy for simple appendicitis is almost nil.

2. The mortality in complicated cases runs from 9 per cent to 13 per cent, and those who survive are frequently victims of subsequent intestinal obstruction, fecal fistula, metastatic infection, post-operative hernia, and are forced into a prolonged and expensive hospitalization.

It is true that there is some difference of opinion as to treatment of cases in which the infection is beyond the appendix. Some still follow the advice of Ochsner and Deaver, and wait still longer for the infection to localize, if it will. But I believe the weight of opinion is to operate as soon as possible in all cases, excepting only those in extremis. Many times an incision and drainage or an extra-peritoneal drainage after the method of Eastman, is all that should be attempted. We have no less authority than Murphy and Kelly and many others who strongly advise immediate laparotomy in appendicitis with spreading peritonitis.

Personally, I believe great harm has been done by the adherents to the Ochsner-Deaver regime, in that they have so emphasized their good results which followed in their cases of delayed interference that the impression gets abroad that delay in the early cases need not be so serious. Of course they do not intend to convey such an impression. But more accurate conclusions can be drawn if they would publish separately their mortality not only in the simple and complicated cases which are operated on, but also in those cases in which the infection does not localize. From the evidence given in these late reports, certainly the conclusion cannot be drawn that delayed interference in late cases is preferable.

In viewing the field as a whole it is evident that the greatest good can come from continually emphasizing the fact that there is practically no mortality following appendectomy for simple appendicitis. And further, I believe that nothing will so emphasize among physicians the need for early operation as the insistence on their presence at operation, especially in all late cases. Each one of these serves as an object lesson which cannot easily be forgotten.

On the other hand, it must be extremely disconcerting for the intelligent physician who, on seeing the patient for the first time, recognizes the trouble and has succeeded after prolonged talk in convincing the family that an immediate operation is imperative, only to encounter temporizing and watchful waiting on the part of the surgeon.

Another source of frequent delay should be

condemned in passing. A cathartic serves only to hasten rupture of the appendix and spread of the infection, but when given early in the onset of the disease, I believe its greatest danger lies in the delay in waiting for it to act. This time is most important and should be allotted to the surgeon and not to cathartics.

SUMMARY

It is sufficient to condense this analysis of 132 cases of acute appendicitis to the following simple form:

1. There were no deaths among the ninety-five cases operated on while the disease was confined to the appendix.

2. The thirty-seven complicated or late cases furnished the five deaths of the series together with all of the serious troubles in convalescence such as intestinal obstruction, fecal fistulae, empyema and post-operative hernia, and a prolonged and expensive hospital stay was forced upon all survivors.

3. With a little more publicity for the laity and the use of ordinary care and skill on the part of the physician in his diagnosis and treatment, the present rate of 400 deaths a year in this state from appendicitis should be reduced easily to a tenth of that number.

DISCUSSION

O. G. PFAFF (Indianapolis): Dr. Cameron's timely paper serves to emphasize again the fact that our knowledge concerning appendicitis has got to be passed along over and over again. It would be much better in my opinion had this subject been brought up in the general session before the general profession. When an experienced surgeon thinks of delay in acute appendicitis his mind reverts at once to a busy undertaker and a fat graveyard. There is no excuse for delay. The matter might be brought before the profession in about this way: Take one hundred cases of appendicitis and operate on none of them, we will have about a 33 1/3 per cent death rate; at least one-third will die in the third or fifth attack. Sooner or later one-third will die from appendicitis if not operated. There is one-third who will have one attack of appendicitis and get well, and that is the end of the matter. There is another one-third that does not die and does not get well, but who will have recurrences of the appendicitis and who will have rheumatism, indigestion and trouble over the body in various places due to the infected appendix that is always with him. If you take another one hundred cases and operate on every single one early you will have a fraction of 1 per cent

mortality. If you tell a man that without operation he is in the class with a 33 1/3 per cent death rate, and if you operate you put him in the class with a death rate of a fraction of 1 per cent, you have a pretty strong argument. Those who do not die have all these things hanging over them.

One of the things that might be mentioned as a complication is multiple abscess of the liver. We had a case, the wife of a physician, with an appendicitis, who was advised to have her appendix removed and refused. Then came a chill and extreme rigor. The next day we operated and took out the infected appendix with pus and thought she was safe. A couple of days later came another rigor and almost daily thereafter. Rolleston states that such cases on an average live fifty-seven days; this patient died on the sixty-first day.

J. H. EBERWEIN (Indianapolis): We cannot lay too much stress on the idea of operating appendicitis early. The idea that if the condition has gone on for a few days it is better to wait a little longer, until the disease is localized and the patient's resistance is built up, is not a good one except in rare instances. As a matter of fact, it is difficult to tell how long the infection has been going on. Probably all of us have operated for appendicitis and found a much worse condition than was expected—found a necrosis—found a gangrenous appendix lying near the wall of cecum. Delay in such a case would mean fistula or a gangrenous cecum. Early operation avoids that.

As Doctor Pfaff said, this subject should be discussed in the general session, so that the physician, who sees these cases first, will get them to the surgeon early.

D. F. CAMERON (closing): I have been dealt with much more gently than I anticipated. In my home town it usually starts fireworks if one condemns the Ochsner treatment, for there are several good men there very strong for it. But I do not want to let that overshadow the main idea—that it is the ruptured cases which furnish practically all the deaths and serious complications.

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Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

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EDITORIALS

THE INTERPRETATION OF ROENTGENOGRAMS

In this number of THE JOURNAL we publish an original article, with case reports, which seems to prove that roentgenologists' reports are subject to considerable variance as to accuracy and trustworthiness. The matter is of importance when we take into consideration the fact that our courts are coming more and more to the conclusion that roentgenograms settle certain questions definitely and conclusively. That the roentgenogram has a limited field of usefulness must be admitted, as we also must confess that even in skilled hands there is the possibility of error. However, in the final analysis we should take into consideration the question of the kind of an apparatus that is used, the training and experience of the operator, and the carefulness and ability with which the interpretation is made. As a concrete example, we cite the following case: An employee of a transportation company presumably was injured by being hit in the eye with a piece of steel. A roentgenologist, after making a dozen or more roentgenograms, reported definitely that no steel was in either the eyeball or the orbit. Subsequently the eyeball became the seat of an inflammation and as there was some doubt as to the reliability of the results of the previous examination the patient was referred to a second roentgenologist for examination, and he reported that there was a foreign body within the eyeball. The eyeball was enucleated and the steel found in the locality shown by the roentgenograms. Evidently the first roentgenologist used inadequate apparatus, faulty technique, or falsely interpreted the roentgenograms. Now, the question arises as to what sort of a mix-up would have occurred had this turned out to be a legal case and got into the courts for settlement. If the courts had taken the first roentgenologist's report and concluded that his roentgenograms settled the question as to the presence of a foreign body within the eye, embarrassing complications could occur later if the eyeball were removed and the steel discovered within the eyeball.

On numerous occasions we have had roentgenologists glibly tell us what was present in case of suspected pathology of the mastoid bone, for instance, only to find upon operation that the pathology as pointed out by the roentgenologist

did not exist. The same is true as pertains to affections of the accessory sinuses and foreign bodies within the eyeball or orbit. Accordingly, we have learned, through our experience, to accept the interpretation of the roentgenologist with considerable hesitation unless we are satisfied that all of the conditions pertaining to the roentgenographic work have been in keeping with all that makes for trustworthiness. By this we mean that, all things being equal, more reliance can be placed upon the interpretation of roentgenograms that have been made with the highest quality of modern apparatus, and by a roentgenologist who has had adequate training, experience, and who possesses the analytical mind necessary for trustworthy interpretation of the roentgenograms that he makes. It has been our experience that the better trained the man is the less likely he is to make snapshot diagnoses or to present opinions that can not be substantiated by either the clinical or roentgenographic findings. Whenever he is positive, as he often is, his interpretation is based upon findings that his education, training and experience lead him to believe are sufficiently trustworthy for definite conclusions. Furthermore, the really good roentgenologist, and the one who is helpful to the general physician or specialist, is the one who follows up the cases and determines for himself that the abnormality or the pathology found upon operation or autopsy bears out the interpretation made from the roentgenograms. In other words, it is the personal equation that on the whole makes roentgenography trustworthy to the physician and surgeon who expects to obtain some help from it. The man who attempts to do roentgenographic work without an excellent general medical education, without adequate modern equipment, and without considerable training and experience under the tutorship of experienced teachers, is bound to make many mistakes, and sometimes they are costly ones. In short, our failure to secure satisfaction from roentgenographic work, and in fact, from laboratory work of any description, more often is due to the lack of equipment and training, to say nothing of general medical education of the roentgenologist, than anything else. Consequently, we have no right to condemn roentgenography or laboratory work because we find that poor work does not tally with the subsequent findings at operation or autopsy. We have the highest regard for and receive an abundance of help from the work of the educated and well-trained roentgenologist. His interpretation so often has tallied with the clinical findings that he is a valuable assistant in helping us to arrive at trustworthy conclusions. On the other hand, we frequently have been led astray, often against our better judgment, by the glib reports and findings of the inexperienced and illy trained roentgenologist, so that we have come to the conclusion that roentgenology, if it is to be

valuable to the practitioner of medicine, and especially the surgeon, must be in the hands of the well-trained roentgenologist.

MEDICAL AND SURGICAL ARTICLES IN LAY PUBLICATIONS

A prominent member of the Indiana State Medical Association, after reading our editorial note in the October number of *THE JOURNAL* concerning the impropriety of Dr. J. B. DeLee's efforts to educate the public with what seemingly is exploitation of himself, said: "Amen. While you are hitting the big fellows, why not rap some others who are getting too free with their pens in writing for lay magazines and papers."

We have no apologies to make for attacking what we consider to be a wrong, though we hope that our criticisms are constructive. We have the highest respect for some of the leaders in our medical profession who have done much for the advancement of the practice of medicine as well as in furthering the welfare of the people. We also wish to commend them in their efforts to educate the public concerning individual and community health. However, in carrying on this latter work we believe that it is not necessary to indulge in those practices that savor of self-exploitation and notorious and flagrant abuse of all the rules of propriety concerning advertising. As we attempted to point out in the editorial note to which attention has been directed, how can we expect to discipline the little fellows in the medical profession when the bigger ones are doing the very things about which we are complaining in our local medical societies. The little fellow who writes a very creditable article concerning disease prevention and has it published in the daily papers of his community over his own signature gets h—— from his confreres, and just as likely as not is "brought up on the green carpet" for disciplinary measures, even suspension from the society. He has a perfectly justifiable right to complain of this treatment when we overlook a flagrant abuse of propriety in men like DeLee or others who stand high in the profession. Not for one moment would we criticize these eminent men in our profession for their attempt to help the public to protect itself from those conditions that interfere with health and happiness, but there is a right way to do everything, and to our notion these men ought to contribute to the educational articles that are being published all over our broad land, but under the auspices of the great American Medical Association that should be a sponsor for such efforts.

Here in Indiana we have a Bureau of Publicity, sponsored and controlled by the Indiana State Medical Association, and it issues a weekly article on some phase of individual and community health. Many of those articles are written by the foremost physicians of the state, and yet names do not appear in connection

with the articles. If, for instance, one of these men insisted upon having his name associated with the article, and our committee consented to the request, how far do you suppose we would get in our publicity work, and how much dependence would there be placed upon it? Immediately the public would seize upon the information as being a case of self-advertisement on the part of the man who wrote the article, and, above everything else, he would come in for very just criticism on the part of his confreres who would accuse him of attempting to exploit himself. This work of the Bureau of Publicity is gaining in value and importance week by week, and we know that it is having a very beneficial effect in the minds of lay people. If Indiana can do that kind of work under the auspices of the Indiana State Medical Association, why can not the same character of work be done and cover a much wider field under the auspices of the great American Medical Association?

We all have our faults; not one of us is perfect; but to speak frankly, we get sick and tired of this altogether too prevalent idea that we must gloss over or whitewash the glaring unethical conduct and improprieties on the part of the so-called leaders in our profession. Let us do away with much of the hypocrisy that exists when we consider the question of ethics in our professional life. Furthermore, we suggest that every doctor in the United States ought to read the Principles of Ethics about once a week in order to keep in his mind a keen conception of professional propriety.

THE PENALTY OF QUACKERY

One naturally would think that a person with a university education would exhibit some common sense and use some consistency in the matter of looking after the health. However, some of the biggest idiots known, insofar as consistency of action is concerned, are graduates of some of our best colleges. At the present time we happen to know of a school teacher, a graduate of one of our leading universities, who was compelled to give up teaching because of a crippled heart, due to her love for a pair of badly diseased tonsils which she claimed that the Lord had given her and she proposed to keep even though they frequently lighted up with an inflammation that put her out of commission for a week or ten days at a time. A reputable and well qualified internist advised her to avoid exertion and lead a very quiet life in view of some very serious symptoms developing as a direct consequence of the crippled heart. She wasn't quite satisfied with this trustworthy advice from a well trained physician, so she took the advice of a friend and consulted a chiropractor who possesses nothing more than a common school education and never had any training in the proper diagnosis and treatment of human diseases. True to his calling, the chiropractor began to rub

and knead, and to tell the patient that all she needed was fresh air and exercise, and that there was no occasion for quitting her usual vocation nor even stopping the ordinary duties or pleasures of life. As a penalty for the acceptance of such unskilled and untrustworthy advice, the patient suffered a severe relapse, and was glad to go to bed for a prolonged rest and such treatment as an intelligent physician advised.

What the medical profession owes the public is not only good service, based upon intelligent information and adequate training, but education as to what constitutes trustworthy information and good training concerning human diseases and abnormalities. Up until a few years ago we permitted the quacks and medical impostors of every type to educate the public through newspapers, circulars, and propaganda of various types, and the public took everything of that character at face value and suffered in consequence, while the medical profession, throwing a blanket of professional ethics over its shoulders, refused to help the public in a better understanding of the situation. Medical men can make their own position much more highly respected, and at the same time do the public a valuable service if quackery is exposed on every hand and unrelentlessly. Right now our public schools are honeycombed with teachers who are spreading vicious propaganda in the interest of the Christian Scientists and the pseudo-medical cults. Their very position in society ought to be proof to these teachers that education and training counts for as much in the practice of medicine as it does in teaching school, and that human ailments require an educated and trained physician just as much as schools require educated teachers. Therefore, it is inconsistent for them to spread propaganda for members of the pseudo-medical cults who oftentimes haven't even a good common school education, let alone any knowledge of the anatomy, physiology and pathology of the human system. Furthermore, the one way to stamp out quackery is to get the public to understand how dangerous quackery is for the individual as well as the community. When the public really understands this we shall have no difficulty in securing legislation that not only protects the public but places a higher premium upon education and training as now carried on in our leading medical schools.

THE REWARDS OF MEDICINE

You often hear it said that there is a limited field for a medical man, and not much compensation. Now comes Will Mayo, in an interview published in the October issue of *The American Boy*, in which he says that it all depends upon the man as to whether he will succeed or not. That is true as pertains to the practice of medicine as well as anything else. The doctor who really

does things for humanity may not profit greatly in dollars and cents, but he profits in the estimation of the world, and by the feeling in himself that he has done well. Innumerable instances may be cited in which men have made reputations for themselves in the field of medicine, and what others have done the men of today can do. Many doctors in the country towns say that there is no chance to advance there, but this statement is disproven in innumerable instances, and we might of our own initiative cite the Mayos as examples of successful medical men who started as poor boys and not only made their enviable reputations in a small town, but continue to live in a small town. The late Nicholas Senn once said, touching upon the success of the Mayos, that the reason they have succeeded is because they did everything at that time just a little bit better than anyone else. That was a very gracious and highly complimentary statement, coming from a noted surgeon, but it emphasizes the fact that the world is willing to recognize ability and performance no matter from where it comes. The boy who desires to study medicine will find a field that offers just as many advantages as it ever did. It depends upon the boy. When you find the medical man saying, "What will I get out of it?" you will find a man who is not going to get very far. On the other hand, the medical man who does his work well and looks for the reward afterward is bound to receive just compensation in every direction.

BIG BUSINESS RECOGNIZES ONLY SCIENTIFIC MEDICINE

Approximately twelve thousand negroes are employed by the Pullman company as porters. Before a negro is taken into the service of the Pullman company as a porter he either must be vaccinated or show evidence of a recent successful vaccination. The physician making the examination must satisfy himself that a vaccination scar is less than five years old. If older than this at least one attempt at reinoculation is required. Applicants also must be examined as to physical fitness.

The Pullman company is a business organization, and the question of dividends and profits is uppermost in the minds of the officers and directors. Accordingly the company takes every precaution to avoid money loss through sickness of its employees, or the spread of contagion due to carelessness in the acceptance and conduct of employees. Antivaccinationists would have a hard time talking to the officers of the Pullman company, and likewise their arguments would receive scant consideration at the hands of most any large corporation. In reality when it comes down to a consideration of dollars and cents in the shape of profits no company or business organization is willing to listen to anything but the dictates of modern science. The pseudo-medical cults and

all of the various exploiters of queer medical theories and fake health propositions receive scant consideration.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital.

We invite and urge you to use this Service.

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Perhaps you want a certain kind of instrument which is not advertised in THE JOURNAL, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask THE JOURNAL about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want THE JOURNAL to serve you.

MEDICAL society dues for 1927 are payable now. Send a check today. Your county medical society secretary will be pleased to hear from you.

It is reported that Wrigley Pharmaceutical stock is being offered to physicians, and the literature concerning the same is said to make one believe that the company is identified with the Wrigley company of Spearmint Gum fame, and therefore its stock is desirable to own. The suggestion is made that it would be wise to investigate before investing.

We ought to publish more society proceedings in THE JOURNAL. To do this we must have the co-operation of county medical society secretaries. Copy should be prepared and sent to us not later than the twentieth of the month preceding the issue of THE JOURNAL in which the proceedings are to appear. Abstracts of papers and discussions should be short.

THE Indiana State Medical Association is now incorporated under its present name. The incorporation includes a copy of the constitution and by-laws recently adopted. Heretofore, our corporation was under the name of the Indiana Medical Society, and it included the constitution and by-laws of many years ago. Therefore, legally, we now are up to date.

SOME of those men who present papers before annual sessions of the Indiana State Medical Association will save themselves embarrassment if they remember that according to our by-laws all papers presented before the Association become the property of the Association and are not to be published elsewhere than in THE JOURNAL except by consent of the officers of the Association.

AN eager public is being told by the chiropractors that to sit with the legs crossed has elements of danger in it inasmuch as it causes pressure

upon the spinal nerves. The Abrams disciples are telling stout women that they can get thin by means of the Abrams treatment. Well, newspaper advertising pays, and as a sucker is born every minute no doubt the chiropractors and the Abrams disciples will profit thereby.

THE county medical society directory published in the advertising department of THE JOURNAL is not very accurate. This is because county medical society secretaries do not advise us concerning changes that should be made in order to keep the directory up to date. Unless we can have the co-operation of the county medical society secretaries in this matter we are going to abandon the practice of publishing the directory as a regular feature.

THE cults, medical pretenders, and even the Christian Scientists, will be out in full force at the next session of the Indiana legislature not only to prevent the passage of any constructive medical legislation but if possible to destroy that which we now have. What are you doing in your immediate vicinity to help prevent such a destructive program? There is room for a lot of work on the part of every legislative committee of every county medical society in the state.

A SECRETARY'S job is no snap. The secretary of the county medical society gets more abuse than any other medical man in his immediate community. What he should have is the cordial co-operation and support of every medical man in his county to the end that the county medical society will be as good as it may be made. Furthermore, the secretary should be relieved of the necessity of hounding the members for the payment of dues. Send him your check now for 1927 and save him the necessity of going after you.

THE chiropractors are announcing publicly that some of the prominent universities are going to investigate the claim concerning disease produced by pressure of the kind that is the basis of treatment by chiropractors. Well, this is a good talking feature now but perhaps if educational institutions tell the truth the chiropractors will be discredited more than they are now. However, the number of credulous people who take up with bizarre ideas is not getting any less and if it isn't chiropractic humbug it will be something else equally as absurd.

WE desire more news notes and personals for THE JOURNAL. This means that any member of the Indiana State Medical Association can send us items which he thinks will be of interest to the readers of THE JOURNAL. Of course neither we nor the readers of THE JOURNAL are interested in

the announcement that some doctor is building a new pig pen, or that he has run away with his stenographer and in consequence his wife is suing him for a divorce, but we would like a record of the more important social and professional activities of our members.

WE sincerely hope that the Indiana State Medical Association, through a committee to be appointed by the president, will co-operate with the State Board of Health, the Parent-Teachers Association, and various other organizations interested in child welfare, to say nothing of the county medical societies, in carrying out a campaign of education relative to the prevention of diphtheria. Diphtheria can be eradicated from the state, and it is up to the medical profession to aid in the work of educating the public up to the point where it will adopt the procedures that are recognized as necessary in prevention work.

AT the 1920 session of the American Medical Association the delegates unanimously passed a resolution recommending that heroin be eliminated from all medicinal preparations and that its manufacture and sale in the United States be prohibited. Already the United States army, navy, the veterans' bureau, and the United States Public Health Service have discontinued the use of heroin. It is unfortunate that the House of Delegates at the West Baden session of the Indiana State Medical Association was indifferent to the motion made that the action of the A. M. A. be approved. Indiana should not be behind other state medical associations in taking an advanced position in connection with questions of this character.

EVERY normal boy has a desire to attain a high degree of physical fitness. Many, however, are handicapped by lack of proper information on the training rules and care of the body. The United States Public Health Service has prepared a publication to fill this very need. This publication entitled, "Keeping Fit," gives authoritative information on sound physical development, illustrated with numerous charts, diagrams, and pictures. Other important information on personal hygiene, with special chapters on sex hygiene for the growing boy and young man, are included. Readers may obtain this publication free of charge by writing to the United States Public Health Service at Washington, D. C.

A CORRESPONDENT calls our attention to the fact that the last legislature passed a law which makes it entirely legal for the state to juggle the finances secured from the gasoline tax, and in consequence the road fund is robbed for general purposes and the state highway commissioners suffer from lack of funds for road construction. Our correspondent asks that every doctor make it his business to request his senators and representatives

to work for the repeal of the obnoxious law, and to make it impossible for our state officials to juggle the finances of the various funds. The gasoline tax is for the roads and it should be used on the roads. No part of it should be devoted to other purposes. Everyone knows the need for better roads, but we cannot expect to have better roads unless we have money to pay for them, and it is unfair to divert the taxes that have been raised for a specific purpose.

A SERIES of lectures on public and professional conduct of medical men ought to serve a useful purpose right now when there is so much of a tendency to lose sight of all of the ethics and traditions of the medical profession as they existed forty to fifty years ago. Furthermore, such a course of lectures ought to be given to the outgoing graduates from all of our medical schools. Some medical colleges make it a practice to give each one of their graduates a copy of the Principles of Ethics accepted and approved by the American Medical Association, but this is not enough. Some one should point out the good that is in the Principles of Ethics and urge the students to follow the rules that have been laid down.

THE Assured Health Company of Lebanon, Pennsylvania, is an old insurance company that now is soliciting stock subscriptions from doctors on the understanding that no less than two shares at one hundred and fifty dollars per share can be purchased, and in a letter accompanying the solicitation it is held out that the subscription may be made with a view of becoming the representative of the company in the community. If every doctor who is asked to subscribe for this stock complies with the request there will not be room for any other stockholders. A company that really is founded on sound business principles does not need to canvass the entire medical profession in order to secure subscriptions for its stock, or suitable representation.

THE United States Public Health Service has issued a pamphlet containing instructions and advice to be given to venereal disease patients, which ought to prove of great value to physicians who are treating venereal diseases. The pamphlet has two parts, one dealing with gonorrhea, and the other with syphilis. Among other things considered are the importance of continuing treatment until cured, and proper diet while under treatment, proper care to prevent the spread of the disease, the futility and danger of quacks and self treatment, sex conduct and marriage. Many physicians have found this publication a valuable aid in their work. Copies of it may be obtained by writing United States Public Health Service at Washington, D. C.

EVIDENTLY Germany does not tolerate any foolishness when it comes to the practice of medicine. A leading German medical journal says that a faith healer has been sentenced to three months imprisonment for manslaughter and neglect of due caution. The evidence shows that the faith healer has allowed a person with a grave heart disease to be up and about, contrary to the orders of the physicians who ordered strict rest. We often have wondered why our courts in the United States have not meted out just punishment to a lot of Christian Science healers who are guilty of just as much criminal negligence as that cited as occurring in Germany. Usually plenty of evidence could be obtained to show the criminal carelessness and neglect of Christian Science healers.

ONE advertising himself as Albert A. Lowenthal, M.D., announces that he will give a short series of complimentary lectures at the Severin hotel, in Indianapolis, during the second week in November. The announced subjects pertain to nervous and mental diseases, and disturbances of the endocrine system. The invitation is extended to the public, and those who accept the invitation are asked to give names and addresses, presumably with the idea of securing a mailing list for Lowenthal to be used for sending out testimonials as to Lowenthal's skill and eventually securing patients. It is needless to go into detail concerning the record of this man Lowenthal. He is exploiting himself, and has been written up in the "Propaganda for Reform," published by the American Medical Association. Speaking frankly, Lowenthal is quacking it, and doctors should advise their patients to steer clear of him.

THE American Society for the Control of Cancer held a symposium at Lake Mohawk, New York, on September 20 to 24. This was an international meeting on cancer control and it ended with a statement of facts and opinions as agreed upon by the members. The statement starts out with the announcement that the causation of cancer is not completely understood, and then, after pointing out that there are certain rules governing the control of this dread malady, the significant statement is made that the most reliable forms of treatment, and in fact the only ones thus far justified by experience and observation, depend upon surgery, radium, and x-ray. This statement comes from educated and well trained specialists who are devoting their time and energy to the study of the cancer problem. Those deluded doctors who are biting at the bait thrown out by Koch and other so-called cancer specialists should sit up and take notice.

LEST we forget! Remember that the uplifters are trying to perpetuate the Sheppard-Towner act. Remember that this act, after years of operation, has accomplished no useful purpose

worth mentioning, and that it has cost the taxpayers a very large sum of money. Remember, also, that the sponsors for the bill deliberately put its administration away from the health department as well as from physicians by placing it under the management and control of a radical labor bureau composed of laymen. The bill should have been defeated in the first place, and now that it is up for re-enactment a strenuous effort should be put forth by the medical profession to defeat it. The time has not arrived when health matters should be put in charge of laymen, nor a radical lay department of our government. Aside from this there ought to be some good and sufficient reason for enacting such legislation and such a reason does not exist.

A well known English music critic has taken Paul Whiteman to task for his nerve racking jazz music, and we are glad that someone who knows good music has the courage to place his stamp of disapproval upon a combination of noises that some would like to call music. As the critic well says, "the jazz enthusiast is merely a musical illiterate who is absurdly pleased with little things because he does not know how little they are." That jazz music upsets the nervous system is an established fact. Many a lover of good music, with a fairly even temperament, is obliged to listen to jazz music against his will at times, and on such occasions he usually gets in an attitude that possibly is similar to that of a bull that is teased by a red flag. Fortunately jazz is losing its prestige and favor, just as every other imitation thing loses out in the end, and the work of the old music masters that has stood the test of time for centuries is coming back into its own.

SEVERAL county medical societies in populous communities have accepted the post-graduate courses now given by the medical department of Indiana University. This shows that post-graduate work is of great interest to a large number of practitioners, and there is no good and sufficient reason why the Indiana State Medical Association should not have encouraged such a forward step in the advancement of our profession. Our Association should sponsor post-graduate work and not leave the matter entirely to the medical department of the university even though the latter named institution is well qualified to handle it. There is a distinct feeling among many members of our Association that medical affairs of the state should not be dominated by nor controlled by the medical department of the university. That being the case, our Association should take more interest in such progressive movements as the giving of post-graduate courses.

THE big rubber companies have made millions out of tires for automobiles. Is it any wonder,

when you consider the prices paid by the consumer and the lack of redress in case the quality is poor? Did you ever read a claim form which must be filled in and signed by the owner of any tire who seeks an adjustment for defective material in a tire that has been purchased? We have one sent out by one of the prominent rubber companies in which it states that "No guarantee lasts longer than ninety days, and any adjustment is at the option of the company." Then the questions asked apparently are put with the idea of securing an alibi for the manufacturer. A perfectly new tire, kept in reserve, if it blows out after going five miles as a result of defective material and workmanship, is not subject to any adjustment if purchased ninety days prior to the date of the discovery of the defect. Making rubber tires for automobiles is a great game, and about as profitable as running an unmolested and fashionable gambling house.

WE hope that the members of the Indiana State Medical Association are taking account of the fact that the medicolegal defense furnished by the Association is costing them less than such service costs in any other state where it is furnished by a state medical association. Last year our medicolegal fund exceeded the amount designated in the by-laws as a reserve and in consequence everything over and above the reserve was returned to the general treasury. Someone may ask if this good showing is due to the fact that there are fewer malpractice suits in Indiana, or is it due to a large assessment which we have to pay for medical defense? As a matter of fact Indiana doctors are good ones, but they are sued about as often as doctors in other states are sued. The reason that the medical defense feature has been so successful in Indiana is because it has been so well managed. The medical defense feature costs only 75 cents per year to each member of the Association, and we believe that to be the lowest assessment charged by any state association in the country for medical defense.

WE are pleased to learn, through correspondence, that one old line life insurance company firmly believes in the value of medical examination as a basis for insurance, as opposed to the so-called non-medical selection, and the company asserts that it hopes to enlist the interest of physicians of high standing in the problems that confront the company in the selection of risks. Incidentally, we may add that such a company can secure the highest grade of medical service if it pays an adequate fee for such an examination as should be required for the granting of insurance and selects the examiners with due discretion as to education, training and experience. Furthermore, we predict that such a company will be able to sell insurance for a less rate than any of the companies that write insurance without examination, for when all is said and done, the good risks

have to pay the insurance on the poor risks, and naturally that will increase the rates over and above that which would be required if many of the poor risks were eliminated through the medium of medical examination.

ALL of the educational institutions under the control of the state need more funds for their development and support. Of particular interest is the need for more funds to carry on medical education in the state. As has been pointed out in articles appearing in *THE JOURNAL*, Indiana is behind all of the surrounding states in its appropriations for educational institutions. It is high time that we wake up to the fact that we must furnish more money for the institutions or see Indiana classed as a "back number." At the present time a man who has property assessed at ten thousand dollars, which, of course, means that he is worth many times more than that, actually pays five dollars per year to Indiana, Purdue and the state normals combined. This is entirely too insignificant an amount, and it could be doubled to the tremendous advantage of the institutions and to the hurt of no one. The next legislature will be asked to increase the appropriation, and it is hoped that the medical men in particular will make their influence felt in supporting the efforts to secure increased funds for the medical department of the university.

DR. RALPH M. FUNKHOUSER, of Indianapolis, has an article in the May-June number of the *Medico-Legal Journal* upon capital punishment. He is opposed to killing criminals, and he says that "our criminal law should be so written that the deliberate murderer can never be free. There should be no need of pardon or parole boards. Neither should he have misplaced tenderness nor uncalled-for sympathy. Visiting committees should not visit him. He should not write nor receive letters, nor have contact with the outside world. He should be treated with kindness and consideration, but once inside the wall he should remain there, though well fed, well clothed and kindly treated. He will be able to support himself and help maintain his new home, and also contribute something to society throughout the world." Dr. Funkhouser might have added that such a plan of treating our criminals would do away with criminality, for the average criminal knows that it is possible for him to be pardoned or obtain a suspended sentence, but if he knows that if he is sent up for life it means for life, there will be less incentive to commit murder.

During November and December you will receive regular notices from your county medical society secretary to the effect that your dues are payable on or before January first, and at the same time you probably will be informed that if you do not pay your dues before February first

you will be considered delinquent. Delinquency means that you are not in good standing in either your local medical society nor in the state medical association. Furthermore, delinquency means that you are not entitled to any of the prerequisites or advantages that go with membership in the state association. The possibility of loss of medical protection alone is something to be considered seriously. Accordingly, why not pay your dues right now while your attention is directed to the matter? There really is no valid excuse for procrastination, and your secretary ought to be relieved of the responsibility of jogging your memory from time to time in connection with the matter. Every delinquent puts about a half dozen people to a great deal of inconvenience and even expense. Pay now and keep up your reputation for promptness, or if heretofore you have been slow or a delinquent, pay your dues now and surprise your secretary.

It may not be known generally that there are federal regulations concerning the fixing of the potency date on biological products, such as the antitoxin for diphtheria, tetanus, typhoid, scarlet fever, dysentery, etc. The fixing of this potency date was with the idea that when the products are distributed and used promptly they will exert certain specific effects. However, it has been discovered that many times the products are effective after expiration of the potency date, and this has led some dealers to become careless in giving attention to their stock of biological preparations and this sometimes may result in the use of a product that is more or less inert. Manufacturers, therefore, have started a campaign with the object in view of having all dealers in biological preparations making note of the potency date of their products, and disposing of those with the shortest potency period first, and refusing to sell those which have passed the potency date. This is a matter of great importance and it is one in which the members of the medical profession, who use the products, should be interested especially. Therefore, it is urged that those who are to use biological products should inspect carefully the potency dates of biological products before they are used.

WE learn that a man by the name of Paul O. Sampson, who represents himself as being under the direction of the National Health League, an organization of which Sampson is the father, is speaking before some of the Indiana luncheon clubs upon matters of diet. Upon investigation we learn that Sampson, who styles himself as a food specialist and goes around the country purporting to give talks on dietetics and nutrition, is utterly unknown to the scientific world. The so-called National Health League apparently is a scheme on the part of Sampson to capitalize the public's ignorance of dietetics and hygiene and

make an easy living for himself. We desire to inform the medical men of Indiana that they will do well if they advise the officers of various clubs like Kiwanis, Rotary, Optimists, Lions, etc., to steer clear of any medical men, self-styled food specialists or representatives of food manufacturers unless coming with the endorsement of some such organization as the American Medical Association. Furthermore, before accepting the proffered services of any medical exploiters it would be well to get some trustworthy information concerning them, and such information always can be obtained by addressing the Bureau of Investigation of the American Medical Association.

It is high time that our school boards and superintendents of schools recognize the fact that quite a number of the teachers in our public schools are proselyting for the pseudo-medical cults, and some of them go so far as to preach the doctrine of the anti-vaccinationists. We are informed reliably that one teacher in our public schools, probably a Christian Scientist, stated to her pupils that there was nothing in diphtheria immunization and that the parents would be wise if they objected to the injection of poison into the systems of their little ones. To our notion such a teacher should be discharged at once. No public school teacher has any right, moral or otherwise, to teach children anything that is contrary to established fact, and especially anything that is recognized by intelligent investigators and observers as being necessary for the preservation of health. Some of these public school teachers are proselyting for the pseudo-medical cults and quacks through ignorance, and because their education concerning health matters has come through others than leaders in the medical profession or public health workers. Those who are entrusted with the education of our youngsters and in moulding opinion of the growing child should be compelled to adhere to established facts in their teaching, whether it pertains to the regular academic work or to questions that come from the outside.

HEROIN addicts are increasing in number at a very rapid rate. It is pointed out by the committee of investigation in the house of representatives that this is due to the fact that heroin addicts have a mania for recruiting others and soon build up a "snow" gang, the drug being supplied to give away free to the boys until they are "hooked." The heroin addicts, rendered antisocial by swift degeneracy, have a veritable mania for recruiting others, and as they find it profitable, because the returns are almost fabulous, they work zealously at their damnable trade. The only way to stop this alarming increase in drug addiction is to control the source of supply, and that is a difficult thing to accomplish. All drug addicts potentially are criminals, but the worst

are those who are addicted to the use of heroin, and they form a large percentage of the ones who carry out daring hold-ups and robberies. To prevent this increase in drug addiction, as also for the protection of the public, we believe that drastic legislation should be enacted, and we do not care how drastic it is as long as it does not interfere with the legitimate rights of the physician in the practice of his profession. The medical man who abuses the privileges granted him in the administration or dispensing of narcotics should receive severe punishment.

PRACTICALLY every doctor drives an automobile and that automobile depends upon a storage battery that sometimes goes wrong. Usually the trouble is due to neglect, but the owner of the automobile is tempted to try one of several battery savers that are well advertised, and which offer the claim that the introduction of a compound into a lead-plate storage battery will correct the troubles to which it may be heir. Sometimes it is claimed that the use of these compounds will keep an automobile battery charged for two years, and that the life of the battery is doubled. Now comes the National Better Business Bureau which publicly states that two of these well known battery panaceas are composed of nothing more than epsom salts, and that their addition to a battery accomplishes no useful purpose of any kind whatsoever. They also point out that a storage battery is an electric device which performs in accordance with recognized laws of electro-chemistry, and that most of the difficulties with storage batteries are easily avoided by proper care, for which there is no chemical substitute. The advice is then given, "Give your battery a chance to live and perform and render service. Don't dose it." Incidentally, we take our hats off to these National Better Business Bureaus and suggest that the medical profession would do well to line up with Better Business Bureaus in an effort to suppress many fraudulent products and practices connected with the practice of medicine.

A DESTRUCTIVE hurricane has struck terror into the hearts of many Florida residents as well as a lot of people who except for fear would be residents or visitors to Florida. However, a little sober reflection ought to point out to these people that catastrophes may come to any part of the country, and as Florida never before has been visited by a destructive hurricane it is quite possible that it may never experience another one. Galveston hasn't gone backward as the result of the tidal wave; Baltimore did not expire after its great fire; Chicago is larger and better than it ever was following the disastrous fire, and San Francisco has grown larger and better since its earthquake. Even Indiana has been visited by several destructive tornadoes that took both life

and property. Florida still has its climate and its wonderful opportunities for the development of a world playground. It needed some sort of leveling influence, following the great stampede and unnatural inflation of values during the last few years, and perhaps the hurricane will do the work quicker than anything else. At all events, a year from now few will think anything about the hurricane, and Florida will resume its rightful place as one of the delightful localities in which to spend at least the winter months.

DR. E. C. DENNY, the councilor of the Sixth district, has inaugurated a movement in his district that might be followed with profit by other districts. He has sent out a letter which, in part, is as follows: "Your district councilor will be glad to assist you in telling other societies of your good programs. To this end, if you will report to him, by the middle of each month, all worthwhile programs and essayists, he will send to each county secretary in the district a list of such programs and essayists, that others may have the advantage of your programs. May your councilor also suggest that occasionally an adjoining county society be invited to your meetings. It is believed that following the above suggestions the county societies will be brought into more intimate contact and the whole profession in the Sixth district will be benefitted." Doctor Denny suggests that exceptionally meritorious papers ought to be reported to the executive secretary of our State Medical Association with a view to having them considered as material for the program for the State Association session. We believe that Doctor Denny's suggestion is worthy of serious consideration. What we need among our county medical societies is more and better programs, and it is very possible that an interchange of essayists would prove very beneficial in stimulating interest in scientific work.

UNDER the title "Swindlers Follow the Undertaker," the Toledo Better Business Bureau says that many sucker lists are made from the death notices appearing in thousands of newspapers. The swindler who uses these lists writes a business letter, addressed to the deceased man or woman. The family opens this and finds it is an acknowledgment of an alleged order for a fountain pen or a rug, or for some shares of stock in some obscure corporation. Later, the goods are delivered and the family pays the bill, believing that the merchandise or the stock actually was ordered before the death of the deceased, when in fact nothing of the kind occurred. The bulletin might have added that right at the home of the deceased there are merchants and professional men who do not hesitate to present a bill against the estate for goods never actually furnished or for services never rendered. Not many years ago, here in Indiana, there was a spirited suit in which an

estate was sued by a doctor for a very large sum covering alleged professional services, but the evidence seemed to show that the services never were rendered and eventually the complaint was thrown out of court. There are altogether too many people in this world trying to get something for nothing, but we believe that on the whole the medical profession is as free from this sort of swindling as any other profession or vocation.

A New York doctor reports that the policeman on his beat says that he cannot live and bring up his children right on the salary received. Therefore, it is necessary for him to accept the graft that he can make on the side. He claims that every policeman in New York has to wink at the bootleggers and speak-easies. He also says that what he obtains in graft is insignificant as compared to what higher-ups get. The prohibition agents also are in on the graft. They start out with the idea that they will trod the straight and narrow path, but the temptation is too great and most of them finally fall from grace. It is costing us an enormous amount of money to enforce the Volstead act in even a superficial way. Just how to make the law more effective is a question that is difficult to solve. If other countries had prohibition the matter might assume a different attitude, but at present those countries that manufacture and sell intoxicating beverages are quite content to have prohibition continue in the United States for it means a large financial gain to them. One large English distiller, who is making millions from his distilleries, says that it would be a terrible blow to him if the United States ever went back to pre-Volstead days. We are strong for prohibition if it can be effectual, but we would like to see foreign countries, and particularly our neighbor, Canada, join in the prohibition movement. Then, perhaps, something in the way of real prohibition could be accomplished.

ONE of the refreshing signs of the growing interest of medical men in legislation that affects medical licensure, educational qualifications for the practice of medicine, and public health, is the interest that has been taken in the meetings of the legislative committees of the Indiana State Medical Association that have been held in all of the districts of the state under the call of Dr. Frank W. Cregor, president of the Indiana State Medical Association, and the chairman of its committee of public policy and legislation. There has been a good attendance at practically all of the meetings, and the interest shown has been manifested later in the effort put forth by the medical profession in nearly all of the counties of the state to determine the attitude of the various candidates for the legislature concerning legislation affecting medical affairs. The effect of the work done by the various committees is shown by the secured opinion from many of the senators and assembly-

men that in the next legislature they will not oppose any proposed legislation that is intended to advance scientific medicine and all that it represents. Great credit is due Dr. Cregor for his persistent and untiring efforts to pave the way for a session of the legislature that will not be marred by the enactment of vicious laws regulating the practice of medicine or hampering the work of scientific medicine in the matter of medical education, medical training, and the furtherance of public health work.

Recently the editor of *THE JOURNAL* has received on approval for teaching purposes a stereopticon slide made in London. The slide costs ten shillings, or approximately \$2.50, but our astute customs officers in New York must have thought that the slide was of exceptional value, for they assessed duty of \$1.37, and in addition to this there was a postage bill of something like 30 cents. We fail to understand the reason for such an excessive tariff on something that is used for teaching purposes, but the ways of our internal revenue department are inscrutable. Another incident which shows the inconsistency of our tariff rate is as follows: A pair of small scissors, curved on the flat but of foreign make, costs the medical men \$2.50. A duplicate pair made by the same manufacturer and of the same design, used by a manicurist, costs one dollar. Evidently in the first instance the scissors are called surgical instruments, and in the second instance they are called plain hardware. As a matter of fact some of the medical men could buy some of their instruments from a hardware store for about half what they are paying the surgical instrument houses for the same thing and get better quality at that. We are strong for a protective tariff to aid the American workman in securing good compensation for his services, but we do feel that there should be some consistency in the classification of goods upon which tariff is to be assessed.

FOR a long time we have been very much interested in the various articles concerning public health matters that appear in the monthly bulletin of the Indiana state board of health. A great deal of very interesting and instructive information is given concerning disease prevention, and most of the information should be conveyed to the public, but we often have wondered just how much of it does get to the public. It is possible that the various municipal and county health officers are prepared to publish the information contained therein, but how often do they do it? Just how efficient and enterprising is the average health officer? We contend that a health officer, in order to carry out the functions of his office in an effective way, must be aggressive, but we doubt if there are very many aggressive health officers in Indiana. We say this in a spirit of constructive criticism in the hope that something may be done

to get the apathetic health officers interested in taking the public into their confidence and securing the co-operation of the people in bettering the sanitary and health conditions of the various communities of the state. More rigid enforcement of our laws concerning sanitation, the pollution of our water supply, the contamination of food, and dissemination of disease will go a long way toward improving our morbidity and mortality rates. We believe that the public will support public health officers in their efforts to improve conditions, but it requires the initiative of the public health officer in order to get proper support of the public.

ASTHMA in children is the subject of an editorial in the *Journal of the A. M. A.* of July 24th, 1926, in which the stand is taken that a considerable number of persons subject to a recurring disturbance in breathing that is more marked in expiration, associated with wheezing, are hypersensitive to protein. Certain clinicians would even restrict the term asthma to patients in whom evidences of protein sensitization can be elicited. To fix the responsibility in asthma requires a complete series of protein skin tests accurately performed and competently interpreted, together with a complete history, thorough physical examination, and careful study of the case extending over a considerable period. A study of one hundred consecutive cases of asthma, each studied over a period of many months in the children's asthma clinic of Mt. Sinai hospital, New York, demonstrated that about four-fifths of these youthful patients were protein sensitive in specifically demonstrable ways. Nearly all of them reacted to inhalants, the most common of which, in order of their frequency, were rabbit hair, house dust, duck feathers, horse dander, cat hair, and ragweed. Sensitization to rabbit hair occurred in 49 per cent of all asthmatic children, or in 62 per cent of the protein sensitive group. *The Journal of the A. M. A.* well says that "This is a matter of great practical importance in view of the extensive use of rabbit hair in pillows and mattresses. However, articles of apparel trimmed with rabbit hair, and felt hats and fur coats, and toy animals are additional sources of exposure." In these studies it was found that the role of food in the production of allergic symptoms is extremely variable, and food does not attain the importance of the inhalant protein. A plea is made for the use of more potent diagnostic material.

AMERICANS returning from Europe say that if you want to know who won the war, take a trip through Germany and note the activities that are going on there. Everyone is working in Germany, and prosperity seems evident on every hand. Furthermore, instead of the Americans being the big spenders in the resorts and at the fashionable hotels and cafes, it is the Germans

who are doing the spending with unstinted generosity. Even the German physicians are in training with the rest in hard work for which they apparently are receiving more adequate compensation than was secured immediately after the war when all of the medical men of Germany were said to be poverty-stricken. In reality this is merely an example of industry and frugality. While France, England, and other countries that were engaged in the great war have been fighting as to who is to pay indemnity, and how the spoils of war are to be divided, Germany at once began the work of reconstruction and in reality has gone farther than any of the rest in recovering from the ravages of war. We haven't a very high regard for the militarism of Germany, but we do entertain the highest respect for the stick-to-it-iveness of the average German in working and working well at his chosen trade or profession and patiently waiting for the reward that he knows will come even though it may be delayed. The German doctor is a plodder. He works for the mere love of working, and original research work with him is a pleasure and not a drudge. The average American doctor wants to know what there is in it for him before he gets down to good hard work. We are willing to give credit to the man who realizes that only the best in this world is accomplished by hard work. The population of Germany, including those following every trade or profession, were hard hit by the war. However, they are the first to recover, and their industry and enterprise should be an example to others.

NEW ZEALAND always has been more or less paternalistic in its government. For the most part the people of New Zealand are satisfied with the ordinary comforts of life and are not inclined to expensive tastes or habits. They have been experimenting to some extent with certain phases of state medicine, but it is questionable as to how successful their experiments have been from an economic point of view. One feature that seems to have worked out very satisfactorily, at least so far as health is concerned, is that which pertains to medical and nursing service afforded mothers and children. Various centers have baby hospitals which are also training centers for two kinds of nursing, the one being qualified midwives who also are given training in child rearing—the others, who are not midwives but are trained to act as baby nurses in private homes. On the completion of their training the nurses are drafted to the various centers, and their services are made available for all mothers from the ante-natal period to the time when the child is out of hand. No fees are charged, even to those who can well afford to pay, for it is desired that assistance should be sought by all and that none should lose the help either because of the cost or because of any distinctions between those who

pay and those who do not. The system has spread beyond New Zealand, and a few years ago some such scheme was adopted in one section of London. It also is being tried out in certain Australian cities, and one recently was established in Capetown, Africa. Special attention to ante-natal care with a view to lessening mortality in the first months of babyhood, as the most dangerous period, is being followed out in New Zealand. Special hospitals are being erected by the government to carry on this work and one of the determining factors was the announcement of the fact that the death of babies under one year has dropped from 75 per thousand, to 40, a world's record.

INDIANA seems to be the dumping ground for a lot of quacks, medical pretenders, and erratic therapeutic enthusiasts who occupy positions on the fringe of respectable medicine. For the fall and winter we have promise of great enlightenment through lectures on everything from diet to sex problems, by self-exploiters who come from outside of the state to illuminate the dark places in Indiana. One Sampson, who is strong for Sampson, and undoubtedly gets some direct or indirect financial gain from his personal appearance before audiences, desires to tell various dinner clubs all about diet. Another one, a Dr. Lowenthal, wants to tell the public all that he knows, and then some, concerning nervous and mental troubles, sex problems, and endocrine disturbances in general. Now comes Mel R. Waggoner, M.D., asking Indiana doctors to attend a course of his lectures in Indianapolis, with the promise that the information obtained will "extend your reputation and increase your income." Waggoner is one of those radical and wildly extravagant enthusiasts who a few years ago was pushing the sale of electrical equipment for the McIntosh Electrical Corporation through the publication of a book which recommended electrotherapeutic measures as good for practically every condition or ailment of the human body. As we stated when we reviewed Waggoner's book (*THE JOURNAL*, October, 1923), "No one but a half-baked doctor would place any credence in the teachings (contained in the book) when once it is discovered that the whole attitude of the author is one of extravagant and enthusiastic praise for an agent that has its limitations."

In reality, some of these self-styled specialists, who are so bloated up with their own importance that they have to spill a little of it in Indianapolis or "bust" from inactivity, could with good grace and probably much profit be given a severe letting alone here in Indiana, and especially by the members of the medical profession.

THE Toledo Academy of Medicine has a credit information bureau that really is functioning and rendering valuable service to the medical pro-

fession of Toledo. The profession long has desired some protection from confirmed deadbeats, and the establishment of a credit information service is said to have solved the problem in Toledo. The members list with the Bureau the names of persons with whom they have had unsatisfactory financial relations. The Bureau attempts to sort out malicious delinquents and prevent them from abusing the confidence of other doctors. The Bureau also emphasizes the credit proposition to the public, and publishes the fact that unpaid doctor's bills means a loss of credit. The Bureau attempts to prevent the profession from misusing the services by using the Bureau to collect bills which are exorbitant, or from antagonizing patients who have reasonable cause for the nonpayment of bills. Several Toledo doctors have reported that already the credit information bureau in their city has resulted in a large increase in the amount collected from slow-paying patients. This has been brought about by a general dissemination of the knowledge that the bureau is seeking the names of people who though able do not or will not pay their doctor.

What has been worked out to the satisfaction of Toledo perhaps would be applicable in any other town or city, though we are strongly of the opinion that nine-tenths of the doctors do not use any very business-like methods in collecting their bills for professional services rendered patients or there would be less complaint about poor pay patients. The trouble with so many doctors is that they make no effort to collect their accounts systematically and regularly. The very patients who are slow pay, or who never pay doctors, are the ones who can afford all sorts of luxuries, like automobiles, radios, phonographs, expensive theater tickets, etc. Oftentimes if the doctor goes after these people with a sharp stick, or turns the account over to an attorney, the money is forthcoming at once. No doctor ever lost prestige or friends by forcing these slow paying people to settle their obligations. Usually prompt pay makes good friends and slow pay makes enemies.

WE always are a little amused to receive a request from some insurance company for specific information as to the health of a previous patient and an expression of opinion which virtually indicates whether or not the patient is sufficiently healthy to be passed for life insurance. For this information the insurance company volunteers the information that it will pay the munificent sum of one dollar. Of course it is presupposed that if the patient has been attended for some illness he has had a thorough examination, and the insurance company is taking advantage of the information obtained by that examination. Perhaps this action on the part of an insurance company should be considered as an expression of distrust

of its examiners, though the insurance company probably would say that getting this information from the family physician is merely another avenue of checking up on the desirability of the applicant for insurance. In some instances it may be a means of determining the desirability of a risk without the formality of a regular life insurance examination. At all events it makes us smile to see how readily life insurance companies fall into the habit of trying to get something for nothing. Instead of selecting the highest type of medical men, with adequate education, training, and experience to act as medical examiners, and paying a respectable fee for any services rendered, some of the companies rely upon the appointment, for the most part, of men who will accept the position and for the meager fees that ordinarily are paid. In order to get a check upon some of these examiners who may not be as proficient as they ought to be, the insurance companies try to secure information in a roundabout way, as in the instance already cited. We really would like to see a life insurance company organized on the basis of selecting preferred risks, with a selection made after a thorough and painstaking examination of all applicants by a well-trained medical man. Such a company would make all of the other companies look like thirty cents when it came to the question of rates. Their losses would be minimized because they would not be paying for a lot of risks that never should have been accepted.

A CORRESPONDENT offers criticism concerning the practice of some physicians, notably in Indianapolis, in publishing their professional cards in various lay papers and religious periodicals. A few years ago we made an investigation of the claims put forth by one of the solicitors for certain Catholic periodicals and in particular a Catholic directory reported to be published in the interest of various churches, and copies of which were said to be sent to each and every communicant of the churches represented. The reason for the investigation arose through the implied threat that if those depending upon Catholic patronage did not advertise in the Catholic directories they would suffer in a business way. Through the Catholic clergy it was learned that practically all of these enterprises are private commercial enterprises for profit of individuals and that no church or any church activity receives any money gained therefrom. It also was suggested that if anyone chose to give their advertising patronage to such enterprise it should be considered a purely personal matter, and that the possibility of gain from such expenditure should be considered questionable. We discovered that a number of doctors were carrying their professional cards in some of these directories, most of the advertisers having given their patronage under the mistaken notion that if they did not do

so they would lose friendship and patronage among the Catholic people.

We desire to say, what we have said long ago, that the publication of a professional card in lay periodicals, giving name, office address and hours, with perhaps the further announcement that the practice is limited to some specialty, is not in itself unethical, but it is in exceedingly bad taste, wholly unjustified, and usually without adequate return. Therefore, the best way to meet the solicitor for advertising for any of these church directories or programs of any kind is to say to him that it is not considered proper for medical men in good standing to advertise in lay publications and that no such publicity is desired. If a church or any of its activities is to profit as the result of advertising, and the doctor wishes to aid the project by his support, then contribute the equivalent of the advertising in money to the church or the church activity but refuse to permit any advertising of yourself.

A CANVASSER for the American Medical Association has written us that while traveling through Indiana he found medical affairs in about as good condition as in any other state but that there is great room for improvement insofar as ethics and propriety is concerned. He mentions a doctor in Marion, Indiana, who he says is running the county medical society and also an Abrams outfit. He also reports having found in Indiana all sorts of drugless healers who are buying their narcotics from regular physicians, and referring surgery and abortions to regular physicians, thereby holding the good will of the aforesaid physicians. He says that he found that Indiana averages about one cancer doctor to a county, and that a regular practicing physician in Crawfordsville recently paid one thousand dollars for a secret cancer formula. He incloses the letterhead of a female of the species who advertises herself as Anna Grover Kauffman, M. D., LL.B., with a surgical hospital at 302 E. Lincoln avenue, Goshen, Indiana. On her letterhead she advertises that she is a general practitioner, and that cancers are removed by a painless and bloodless process. She also says on her letterhead that she is a specialist in the cure of blood poisons and bone diseases without surgical operation, chronic sores and rheumatism, dropsy, asthma and erysipelas, gall stones and tuberculosis. The letterhead also is embellished with what presumably is a picture of the fair Anna, dressed in academic cap and gown, by which we presume she intends to indicate that she is a college graduate and of studious habits. Our correspondent also incloses an original certificate from an Elkhart regular physician which certifies that "the bearer, Miss ——— is free from any form of contagious disease." A postscript says that "the above is a sample of what a street 'chippy' gets for five dollars." He says that one of the amusing finds was a Richmond man whose

first name is Elijah, and whose sign bears the words, "Divine healer." Further comment is as follows: "The whole medical fraternity in Indiana seems to be bluffed by a few chiropractors. If the doctors of Indiana will put up a dollar apiece to cover expenses the chiro's can be backed off in sixty days." In a conversation with this canvasser, he pointed out that quackery and trickery thrives in our best medical societies because it is not exposed. He thinks, and we quite agree with him, that if county medical societies will pursue, unrelentlessly, the bad actors among their members, exposing them when the evidence is clear, there would be less of which we could complain concerning the inexcusable faults of men whom we permit to retain membership in our medical societies.

DEATHS

O. C. MURPHY, M.D., of Franklin, died September 20, aged sixty-four years. Doctor Murphy graduated from the University of Louisville School of Medicine, in 1893.

WILLIAM H. STAFFORD, M.D., of Newcastle, died at his home September 18, aged sixty-four years. Doctor Stafford was a graduate of the Physio-Medical College of Indiana, Indianapolis, in 1887.

F. W. HAZLEWOOD, M.D., of New Albany, died at Battle Creek, Michigan, October 9th, aged sixty-two years. Doctor Hazlewood had practiced medicine in New Albany for twenty-three years. He graduated from the Hospital College of Medicine, Louisville, in 1900.

DON L. MILLER, M.D., aged forty years, died at his home in Indianapolis September 25. Doctor Miller graduated from the Detroit College of Medicine and Surgery in 1911. He was a member of the Indianapolis Medical Society, the Indiana State Medical Association and the American Medical Association.

J. N. TODD, M.D., of Evansville, died September 30, aged sixty-six years. Doctor Todd was a member of the Vanderburgh County Medical Society, the Indiana State Medical Association, and the American Medical Association. He graduated from the University of Tennessee College of Medicine, Memphis, in 1879.

ROY E. DEWEES, M.D., of Hartford City, died at the Grant county hospital, October 8, 1926, aged fifty-four years. Doctor DeWees graduated from the Curtis Physio-Medical Institute of Marion, Indiana, in 1897. He was a member of the Blackford County Medical Society, the Indiana State Medical Association, and a Fellow of the American Medical Association.

HARRIET WILEY, M.D., of Portland, died September 23, aged fifty-six years. Doctor Wiley had practiced medicine in Portland for twenty-seven years. She was a graduate of the Northwestern University Woman's Medical School in 1897. She was a member of the Jay County Medical Society, the Indiana State Medical Association, and the American Medical Association.

GEORGE W. THOMPSON, M.D., of Winamac, died September 26, aged seventy-seven years. Dr. Thompson was a graduate of the Indiana Medical College, Indianapolis, in 1873, and of Rush Medical College, Chicago, in 1882. He was a member of the Pulaski County Medical Society, the Indiana State Medical Association, a Fellow of the American Medical Association and a member of the Association of Pennsylvania Railroad Surgeons.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

DR. F. W. FOXWORTHY, formerly of Indianapolis, has returned to his office in the First National Bank Building at Miami, Florida.

BEGINNING with the January 1927 issue, the *Radiological Review* will be published monthly instead of bi-monthly, and the number of pages will be increased from 32 to 64.

THE Grant County Medical Society held a meeting at the Spencer hotel, Marion, October 26th. Dr. Herman L. Kretschmer, of Chicago, presented a paper on "Border Line Problems in Urology."

DR. EUGENE L. BULSON, of Fort Wayne, son of Dr. Albert E. Bulson, Jr., editor of THE JOURNAL, and Miss Phylis Parker, of Boston, were married in New York City November 3.

THE fall meetings of the Madison County Medical Society began on October 26. A paper was presented by Dr. Carl S. Oakman, of Muncie, on "Radium Therapy as It Should Interest the General Practitioner."

THE Tippecanoe County Medical Society held a meeting, October 14th, at St. Elizabeth hospital, Lafayette. Following dinner at the Lahr hotel, Dr. Ralph C. Hamill, of Chicago, presented a clinical lecture, his subject being "Mental Disease."

A RECEPTION in honor of Dr. Wm. A. Doeppers, who recently was appointed superintendent of the

City hospital, Indianapolis, and Mrs. Doeppers, was held October 15th. The reception was attended by members of the training school, resident physicians, internes and department heads.

THE United States Civil Service Commission announces open competitive examination for medical interne (psychiatric). Applications will be rated as received until December 30. Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C.

THE Eleventh Indiana Councilor District Medical Association, comprising Carroll, Cass, Miami, Wabash, Huntington, Grant and Howard counties, held its thirty-sixth annual meeting at Kokomo, October 21. Papers were presented by Dr. Ralph C. Brown, of Chicago; Dr. George Bond, of Indianapolis; Dr. James B. Herrick, of Chicago, and Dr. Morris Fishbein, of Chicago. Special entertainment was arranged for the ladies.

THE Thirteenth District Medical Society held a meeting at Elkhart, October 7. A clinic was held at the Elkhart General hospital from 9 until 11:30 in the morning, and the afternoon program consisted of papers by Dr. F. V. Martin, of Michigan City; Dr. H. O. Shafer, of Rochester; Dr. John Pracher, of Laporte; Dr. R. V. Hoffman, of South Bend; Dr. Charles S. Bosenbury, of South Bend, and Dr. W. Bert Siders, of Warsaw. The university extension program of the Elkhart Medical Society concluded the meeting.

THE Ohio Valley Medical Association held its twenty-seventh annual meeting at Louisville, Kentucky, November 10th and 11th. The program included papers by Dr. L. Davis, of Chicago; Dr. John R. Caulk, of St. Louis; Dr. Frank E. Bunts, of Cleveland, Ohio; Dr. L. Wallace Frank, of Louisville; Dr. I. S. Ravdin, of Philadelphia; Dr. S. L. Koch, of Chicago; Dr. P. M. Hickey, of Ann Arbor, and Dr. Elliott P. Joslin, of Boston. Clinics were held the entire second day of the session. Dr. James Y. Welborn, of Evansville, is president of the Association, and Dr. Justice F. Wynn, of Evansville, is secretary-treasurer.

In addition to the articles already enumerated the following have been accepted by the Council on Pharmacy and Chemistry of the A. M. A.:

H. K. Mulford Company:

Digitos.

Digitos Ampules, 1 cc.

Solution Pituitary Extract Surgical-Mulford
Ampules Solution Pituitary Extract Surgical-Mulford, 1 cc.

Parke, Davis & Company:

Ovarian Substance Soluble Extract—P. D. & Co.

Ampules Ovarian Substance Soluble Extract—P. D. & Co., 1 cc.

E. R. Squibb & Sons:

Ipral.

Ipral Tablets, 2 grains.

United States Radium Corp.:

Ampules Radium Chloride, 2 cc.—United States Radium Corp. (radium element, 50 micrograms).

Ampules Radium Chloride, 2 cc.—United States Radium Corp. (radium element, 2 micrograms) for Drinking Use.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

September 13, 1926.

Meeting called to order at 4:45 p. m.

Present: Wm. N. Wishard, M. D.; S. E. Earp, M. D.; Murray N. Hadley, M. D., and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held September 7, read, corrected and approved.

The secretary was instructed to send the assistant dean of Indiana University School of Medicine a list of publicity speakers and subjects talked upon in the publicity meetings.

Copies of the Indiana State Health Council report in which appeared a report of the Indiana State Medical Association, were distributed to members of the Bureau. Copies of this report will be distributed to each county secretary and to the secretaries of each of the State Medical Associations.

Report of research committee of the Indiana High School Athletic Association read. This report contained the answers of 175 physicians of the state in regard to high school athletics and the effect athletics have upon the health of high school boys and girls.

The Bureau of Publicity authorized the secretary to set up a large board at the West Baden meeting containing some of the newspaper releases that have appeared during the summer.

The release upon competitive athletics for September 20th, read, corrected and approved.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole September 27, 1926.

WM. N. WISHARD, M.D., Chairman.

THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

October 4, 1926.

Meeting called to order at 5 o'clock.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D., and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held September 13, read and approved.

The following bills read and approved for payment:

Hume-Mansur Co., rent and elec.	\$ 2.00
American Linen Supply Co.	1.60
Central Press Clipping Service	5.00
The Indianapolis News	5.00
L. C. Smith and Corona Typewriter Co.	1.50
Shaw-Walker Co.	3.35
Western Union Telegraph Co.	2.71
Harley Garver	5.00

Total\$26.16

The release on "The Lost Art of Walking" read, corrected and approved for release Monday, October 11.

Letter read from the principal of the Union City public schools thanking the State Medical Association for

its co-operation and help in making an investigation concerning the relationship of basketball and the health of high school players.

Letter read from Columbus, Indiana, in regard to a health exhibit by the Columbus Chamber of Commerce. Secretary instructed to help Columbus physicians as much as possible.

Request read from the American College of Surgeons for copies of transactions of the Indiana State Medical Association.

Request read from president of Parent-Teachers Association of Morgantown to be placed on the mailing list for copies of the weekly releases.

Parent-Teachers Association releases and bulletin for October reviewed by the Bureau, the following paragraph being especially noted from the October Bulletin as being of special interest:

"HEALTH RELEASES—The Publicity Bureau of the Indiana State Medical Association will furnish weekly health articles again this year. Reports from a number of associations indicate that they use these as the basis of health programs for their meetings. These articles are written by reliable authorities in the various subjects, in language which the general public can understand, and are most valuable in general health education."

Letter received from Mrs. Edna Hatfield Edmondson, secretary of the Parent-Teachers Association, requesting the Bureau to send 600 copies of each release to her office for distribution to the Parent-Teachers Associations. Secretary instructed to take care of this matter.

Secretary authorized to frame the original charter and incorporation papers of Indiana State Medical Association and hang in the State Medical Association headquarters office. Bureau also instructed the secretary to have copies made of these papers.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole October 11, 1926.

WM. N. WISHARD, M.D., Chairman.
THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

October 11, 1926.

Called to order at 4:45 P. M.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D.; Murray N. Hadley, M.D., and Thos. A. Hendricks, executive secretary.

The minutes of the meeting held October 4, read, corrected and approved.

The following bills were approved for payment:

Simmons Ink Co., stencils.....	\$ 3.50
R. W. Steele Co., letterheads.....	22.50
The Kautz-Stationery Co.....	12.20
The Line-A-Time Mfg Co.....	22.54
Total	\$60.74

An article on Tularemia was read and approved for release to the newspapers on October 18, 1926.

Requests for speakers received from the Tri-County Medical Society at North Vernon, October 20, and for the Third District Medical Society at Bedford, October 28. Speakers named and secretary instructed to make arrangements to fill these engagements.

Letter received from physician of Delaware-Blackford County Medical Society offering his services to the Bureau of Publicity.

Letter received from circulation manager of Hygeia asking the society to arrange speakers for district teachers' association meetings.

Bulletin received from the Indiana High School Athletic Association in which the principal of the Daleville high school recommends to the Indiana High School Athletic Association that "high school basketball players shall receive a physical examination before and after

entering each game of the sectional and regional of the state tournament." Secretary instructed to write a letter to author of this proposal expressing approval of the Bureau on this action.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole October 18, 1926.

WM. N. WISHARD, M.D., Chairman.
THOS. A. HENDRICKS, Secretary.

FLOYD COUNTY MEDICAL SOCIETY

October 8, 1926.

The Floyd County Medical Society met in regular monthly meeting, on the above date, at Library Hall, with the president in the chair, and a fair number of members present.

A communication from the Minnesota State Medical Association, on the subject of medical schools and their attached hospitals, free clinics, public health, welfare and other free medical service organizations, was read. As the Floyd County Medical Society had already set its stamp of disapproval on the above topics (except medical schools and their attached hospitals, with which we do not come in contact, no action was taken.

The secretary, who was the delegate to the Indiana State Medical Association at West Baden, gave a report of the actions of the House of Delegates.

Dr. P. R. Pierson, the essayist, read a paper on, and reported a case of, extra-uterine pregnancy. The doctor covered the subject thoroughly, bringing out many facts that are known to the profession up to the present time. The paper was freely discussed by the members present, and a number of questions were asked, which were satisfactorily answered by Doctor Pierson in closing the discussion.

After the general routine of business, there being nothing further, meeting adjourned.

DR. W. A. HALL, President.
DR. P. H. SCHOEN, Secretary.

TIPPECANOE COUNTY MEDICAL SOCIETY

Lafayette, Ind., October 14, 1926.

The Tippecanoe County Medical Society met in regular session, the clinic being at St. Elizabeth hospital, from 3 to 6 p. m., the banquet at Hotel Lahr, followed by an address on "The Cause and Management of Mental Disease." Six cases were presented at the clinic bringing out many of the various features of mental and nervous diseases.

Case No. 1 was one of devoid development of higher centers due to a disturbance in or near the internal capsule; No. 2 was one of destroyed development of the same tissues; No. 3 was one of marked arterio-sclerosis general, and a possible dementia precox; No. 4 a case of paranoia much improved at this time but not entirely well No. 5 shows an overgrown boy who never worked regularly at his school work nor manual labor, says he does not have to work and never did, is out all night and sleeps most of the day. Has a very indulgent mother with poor heredity—possible pituitary disturbance; No. 6 is a case of fear, probably a melancholia.

Dr. Hamill very ably presented the subject, "Cause and Management of Mental Disease." The address was quite extensively discussed by Drs. Sterne and Carter, of Indianapolis, and others present at the meeting.

A vote of thanks was extended Dr. Hamill for his splendid clinic and address.

The names of H. G. Martin, G. R. Donahue, M. G. Frasch, and Wm. J. Dieters for membership were read the second time, and by motion the rules were suspended and all were elected by acclamation to membership in our Society.

Motion was made and carried that all bills be allowed as read.

Motion to adjourn was carried.

J. C. BURKLE, Secretary.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

ERYSIPELAS STREPTOCOCCUS ANTITOXIN CONCENTRATED-SQUIBB.—An antitoxic serum (*Jour. A. M. A.*, August 28, 1926, p. 671) prepared according to the method of K. E. Birkhaug under license of the School of Medicine and Dentistry of the University of Rochester. It is standardized so that 1 cc. will neutralize at least 50,000 skin test doses of a toxin furnished by the licenser. The product is marketed in syringes containing 15 cc. E. R. Squibb & Sons, New York.

DIPHTHERIA ANTITOXIN, PURIFIED, CONCENTRATED-LILLY.—A diphtheria antitoxin concentrated (New and Nonofficial Remedies, 1926, p. 330) marketed in syringe containers of, respectively, 1,000, 3,000, 5,000, 10,000 and 20,000 units each. Eli Lilly & Co., Indianapolis, Ind.

ANTISTREPTOCOCCIC SERUM-GILLILAND.—An antistreptococcus serum (New and Nonofficial Remedies, 1926, p. 339), also marketed in 20 cc. syringes. The Gilliland Laboratories, Inc., Marietta, Pa.

POISON OAK EXTRACT-LEDERLE (In Almond Oil).—A solution in almond oil of a substance extracted from the fresh leaves of poison oak (*Rhus diversiloba*). It is used to relieve the symptoms of dermatitis due to contact with poison oak. The product is marketed in 1 cc. syringes. Lederle Antitoxin Laboratories, New York. (*Jour. A. M. A.*, Sept. 4, 1926, p. 757.)

DIGITOS.—A preparation of water-soluble active principles of digitalis leaves, containing not more than 7 per cent of alcohol. It is standardized so that 1 cc. is fatal to a 250 Gm. guinea pig. The actions and uses of Digitos are the same as those of other digitalis preparations. It is suited for hypodermic, intramuscular and intravenous administration, but is not adapted for oral administration. Digitos is also marketed in 1 cc. ampules. H. K. Mulford Co., Philadelphia.

SOLUTION PITUITARY EXTRACT SURGICAL-MULFORD.—A slightly acid aqueous solution containing the water-soluble principle or principles of the fresh posterior lobe of the pituitary body of cattle. It has twice the strength of solution of pituitary-U. S. P. X. The actions, uses and dosage of solution of pituitary are discussed in New and Nonofficial Remedies, 1926, pp. 281-283. The product is supplied in 1 cc. ampules. H. K. Mulford Co., Philadelphia. (*Jour. A. M. A.*, Sept. 25, 1926, p. 1037.)

PROPAGANDA FOR REFORM

O IODOXYBENZOIC ACID IN THE TREATMENT OF INFECTIOUS ARTHRITIS.—The Council on Pharmacy and Chemistry publishes a preliminary report on the treatment of infectious arthritis reported on by Drs. Young and Youmans. The authors report that they have treated forty-three cases of chronic arthritis of various types with o-iodoxybenzoic acid and had obtained marked improvement in 50 per cent, and moderate improvement in 29 per cent. In some cases sodium iodoxybenzoate was used; in others ammonium iodoxybenzoate, prepared extemporaneously. The Council states that the results of further clinical trials must be awaited before a final evaluation of this method of treatment can be made. The drug is not commercially available at present. The A. M. A. Chemical Laboratory is prepared to examine salts of o-iodoxybenzoic acid when they are placed on the market. (*Jour. A. M. A.*, Sept. 4, 1926, p. 757.)

RAD-X-SOLUTION A AND RAD-X-SOLUTION B NOT ACCEPTABLE FOR N. N. R.—The Council on Pharmacy and Chemistry reports that "Rad-X-Solution A" and "Rad-X-Solution B," marketed by Robert McKnight, are stated to be "radioactive solutions" which are prepared from "pitchblende or ore carrying radioactive ingredients of similar character and quantity." A gamma ray test, made with a very sensitive electroscope, of the specimens which the Council received from Robert McKnight showed no signs of radioactivity in either sample. The Council found Rad-X-Solution A and Rad-X-Solution B inadmissible to New and Nonofficial Remedies because they

are preparations of indefinite and uncontrolled composition, because they are advertised indirectly to the public, because the claims are unwarranted, and because they are marketed under non-informing names. (*Jour. A. M. A.*, Sept. 4, 1926, p. 775).

MORE MISBRANDED NOSTRUMS.—The following "patent medicines" have been the subject of prosecution by the authorities charged with the enforcement of the Federal Food and Drugs Act: Vita Rica Tonic Pills and Laxative (Vita Rica Pharmacal Co.), pills containing compounds of iron, potassium, manganese, mercury, arsenic, zinc, phosphorus and strychnine. King's Formula (William C. King), a liquid in two layers, composed of ether, alcohol, iodine, eucalyptus oil, water and formaldehyde. Kolide (Kolide Laboratories, Inc.), tablets composed of starch, sugar, gum and iodine (approximately 1/5 grain per tablet). Lithadonis (American Apothecaries Co.), tablets containing compounds of lithium and iodine, salicylate, caffeine and a material derived from plant drugs, including a laxative. Lippi Blood Purifier Tonic (A. F. Lippi Laboratories), consisting essentially of compounds of iron, arsenic, strychnine, potassium and iodine, with extracts from plant drugs, including a laxative, alcohol, sugar, flavoring and water. (*Jour. A. M. A.*, Sept. 4, 1926, p. 776).

EPHEDRINE.—The Council on Pharmacy and Chemistry publishes a report on ephedrine. Ephedrine is an alkaloid first obtained in 1887. Chemically, it is closely related to epinephrine. Ephedrine hydrochloride and ephedrine sulphate are soluble in water. Ephedrine is claimed to produce effects similar to epinephrine. Its most important effects thus far reported consist in a rather lasting rise of blood pressure on intravenous or intramuscular injection. Clinically, promising results have been reported from the use of ephedrine, especially in asthma and for shrinking the turbinated bodies. The clinical trials which have been reported in this country have been carried out with ephedrine sulphate made in the Peking Union Medical College. The Council is informed that the Abbott Laboratories will shortly be in a position to supply a salt of ephedrine obtained from this source. Burroughs, Wellcome & Co., London, supply ephedrine hydrochloride for experimental purposes and have supplied the Council with a specimen of the product and the tests and standards used for its control. Eli Lilly & Co. has announced that it is marketing ephedrine sulphate, containing a small amount of pseudo-ephedrine, under the name "Fedrin." The Council is considering the question of recognizing the proprietary name for this product, and the evidence for its value and control. The A. M. A. Chemical Laboratory has taken up the establishment of standards for ephedrine hydrochloride and ephedrine sulphate. The Council has postponed the acceptance of ephedrine or its salts for New and Nonofficial Remedies to await confirmatory clinical evidence, and until acceptable brands of the drug are available. (*Jour. A. M. A.*, Sept. 11, 1926, p. 849).

THE USE OF CODEINE.—In a report by Dr. Carleton Simon to the Louisiana State Board of Health, it is stated that an extremely large quantity of codeine is consumed in Louisiana, but this, Dr. Simon believes, has no connection with addiction. Its use has been largely increased by the reduction in available heroin. In Dr. Simon's opinion, a connection between codeine and drug addiction has not been demonstrated, but the use of codeine may produce a familiarity with the action of narcotics. The use of codeine is held to be objectionable, also, in that it encourages the cultivation of the poppy plant and stimulates the importation of opium into the United States. (*Jour. A. M. A.*, Sept. 11, 1926, p. 853).

AURINE EAR BALSAM.—This is put out by the Aurine Remedy Co., Chicago. The main feature of the Aurine advertising is that Mr. Folds, who had "suffered fifteen years," was "relieved almost at once" by the balsam. Mr. Folds appears to be the manager of Aurine Remedy Co. The preparation sells at \$2 per one ounce bottle. The A. M. A. Chemical Laboratory reports that the "balsam" is essentially a colored aromatic 66 per cent solution of glycerin to which has been added a very small amount of

boric acid and a local anesthetic resembling Butyn. This simple mixture is sold under the claim that no matter what ear ailment you may be suffering from, you will get relief if you will use Aurine. (*Jour. A. M. A.*, Sept. 11, 1926, p. 867).

UNIVERSAL BAN ON HEROIN.—The Interparliamentary Union will be called on at its meeting in 1927 to determine whether a universal ban shall or shall not be placed on diacetylmorphine (heroin), if a resolution adopted at a recent conference in Geneva is effective. The resolution was adopted on the initiative of Stephen G. Porter, chairman of the committee on foreign affairs of the United States house of representatives, one of the United States delegates to the conference. Mr. Porter cited the action of the House of Delegates of the A. M. A., in 1920, recommending that heroin be eliminated from all medicinal preparations and that its manufacture and sale in the United States be prohibited. Mr. Porter is convinced that at least one-third, or one-half, of the crimes of violence committed in the large cities of the United States by the so-called gunmen and others are committed by heroin addicts. (*Jour. A. M. A.*, Sept. 18, 1926, p. 944).

K-17 OR RATTLESNAKE OIL, DEBARRED FROM THE MAILS.—The Greene Laboratories (which were not laboratories at all) was a trade name adopted by Cooley H. Greene and his wife, and the business consisted in the advertising and sale through the mails of an alleged cure for deafness called K-17, formerly known as Rattlesnake Oil. The stuff was manufactured by George A. Breon, Kansas City, who, presumably, is the same George A. Breon who comes to the medical profession in the guise of a manufacturer of alleged reputable pharmaceutical products. On April 3, 1926, a fraud order was issued debarring the Greene Laboratories and C. H. Greene from the use of the mails. (*Jour. A. M. A.*, Sept. 18, 1926, p. 959).

THE STANDARDIZATION OF INSULIN.—Several international conferences in relation to the standardization of insulin have been convened by the health organization of the League of Nations. At the last conference approved methods of bio-assay for insulin were adopted, and the unit as provisionally defined by the Insulin committee of the University of Toronto was accepted. (*Jour. A. M. A.*, Sept. 25, 1926, p. 1040).

NUMOQUIN NOT ACCEPTABLE FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Numoquin is the proprietary, non-descriptive, therapeutically suggestive name under which Merck & Co. markets ethylhydrocupreine. Ethylhydrocupreine is a synthetic derivative of cupreine, an alkaloid occurring together with quinine in cuprea bark. The Council reports that ethylhydrocupreine has the antimalarial and anesthetic action of quinine, but that toxic symptoms are more liable to occur. Merck & Co. advertise Numoquin for use in the treatment of pneumonia. The evidence for this recommendation is practically of no value. The Council found Numoquin unacceptable for New and Nonofficial Remedies because the drug is marketed with unwarranted therapeutic claims and under a name that is therapeutically suggestive. (*Jour. A. M. A.*, Sept. 25, 1926, p. 1055).

YEASTONE (Merck & Co.).—The advertising circular claims that Yeastone is "useful in chronic constipation, digestive disorders, acne, furunculosis, and in the deficiency diseases," and asserts that "in therapeutic activity a 1½-grain pill corresponds to one yeast cake." New and Nonofficial Remedies, 1926, under "Yeast Preparations," discusses the propaganda that has been made in favor of the therapeutic use of vitamin B preparations, and states that "at all events, the alleged curative or tonic value of special vitamin B bearing products has been emphasized through widespread advertising to an extent unjustified by available evidence." A report of the Connecticut Agricultural Experiment Station reports feeding trials with Yeastone: "No satisfactory growth was secured in any of the trials. Two cases developed polyncuritis, one of which was acute. The re-

sults do not show any merit in the product from the standpoint of water-soluble B vitamin."—(*Jour. A. M. A.*, Sept. 25, 1926, p. 1055).

BOOK REVIEWS

NEW TREATMENT OF FRACTURES. With Notes Upon a Few Common Dislocations. By Charles L. Scudder, M.D., Consulting Surgeon to the Massachusetts General Hospital, Formerly Assistant Professor of Surgery at the Harvard Medical School. Tenth Edition, Revised. Octavo volume of 1,240 pages, with 2,027 illustrations. Philadelphia and London: W. B. Saunders Company, 1926. Polished Buckram, \$12.00 net.

Scudder's Treatment of Fractures is one of the most important books of its kind that we possess. The author correctly states that the results of fracture treatment are too frequently deplorably bad. We can agree with him when he says, "To insure adequate treatment to a given case of fracture:

"A Roentgen-ray record of the injured part should always be had immediately after the injury. The doctor must know what the exact injury is.

"The honest intelligent use a simple accepted form of immediate treatment is imperative."

The book has been enlarged by 491 pages. Of the new chapters, a considerable number have been devoted to the open or operative treatment. The author warns that operations on fractures are difficult—disasters may be terrible from the improper choice of operative procedures, from the inadequate conduct of the operation itself, and from the abbreviated and neglected after-care of the patient. The reviewer trusts that Scudder's book will be studied by some of the medical men who see an indication for operative interference in almost every fracture.

Kurt H. Thoma, D.M.D., has enlarged and revised the chapter on fractures of the maxilla and mandible.

Important changes have also been made in the subject matter dealing with elbow joint fractures. We can agree that "Only absolutely necessary time should be permitted to elapse before reduction of an elbow fracture is attempted. Every hour of delay is handicapping the patient's ultimate recovery." The treatment by acute flexion is carefully described. The author remarks that "absolutely perfect anatomical reposition should be sought in fractures entering or indirectly involving the elbow-joint. A child has nothing to lose in time and everything to gain in a perfect joint."

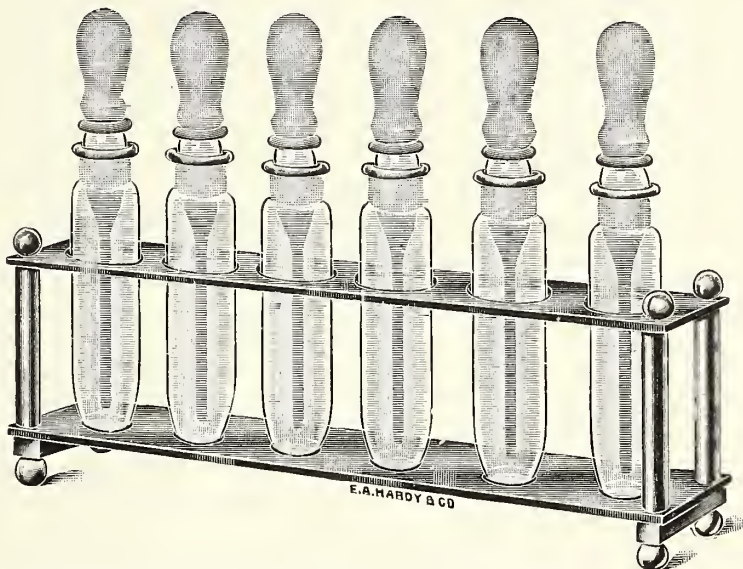
Joseph C. Bloodgood writes on pathological fractures. Frederick W. Bancroft on bone repair, James B. Mennell on massage, Frank L. Richardson on anesthesia and anesthetics, and Edward D. Truesdell on birth fractures.

PRACTICE OF UROLOGY. By Hugh H. Young, M.D., and David M. Davis, M.D., Johns Hopkins University. With the collaboration of Franklin P. Johnson. Two octavo volumes totaling 1,484 pages with 1,003 illustrations, twenty being color plates, by William P. Didusch. Philadelphia and London: W. B. Saunders Company, 1926. Per set: Cloth, \$25.00 net.

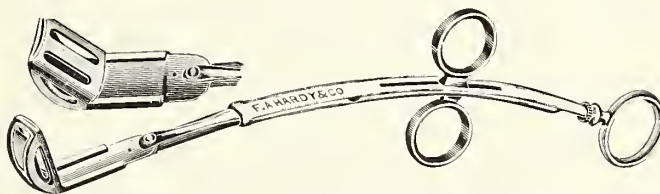
This work is based upon a study of some 12,500 case histories which are filed away at the James Buchanan Brady Urological Institute. Much space and detailed study have been devoted to the various procedures, mechanical devices and original researches which had their inception with the authors—this, by the way, is a truly staggering list. The subject matter has been arranged on the basis of the pathology but it is written essentially from the clinical point of view.

Chapter I, of Volume I, is an illuminating study of the physiology and pathology of micturition. Chapter II is entitled "The Obstructive Uropathy." Here are grouped all the changes in the kidney, pelvis, ureter, bladder and urutera resulting from obstruction to the free flow of urine through the urinary tract. The various tests for kidney function are critically considered. The

(Continued on Adv. Page xx)



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BOOK REVIEWS

(Continued from Page 474)

Pthalein test was developed in Young's clinic, and the authors now draw attention to the fact that in interpreting the results of this test the appearance time is greatly prolonged, operation should be delayed, even in the presence of a fair percentage excretion. They insist that "Laboratory tests supplement but do not replace direct observation of the patient." The general topic of urogenital infections and infestations forms Chapter III; tuberculosis has a separate chapter; syphilis, mycoses, and parasitic diseases are grouped in Chapter V. Considerable space is given to the bacteriologic problems of urology and information is presented which cannot be found in the ordinary text-book of bacteriology. The chapter devoted to tuberculosis is one of the most important in the whole book. Young contends that the early lesion of the epididymis is in the globus minor; but while the epididymis attracts the most attention the vesicles are the primary and principal seat of the tuberculosis process. In place of an epididymectomy or castration he practices a radical operation with removal of vesicles, ampullae, both lateral lobes of the prostate as well as the epididymis and vas. Urolithiasis is considered in Chapter VI. The authors are a bit vague about the causes of stone formation. Chapter VII deals with benign hypertrophy, of the prostate. It is presented as a hypertrophic process and not a true neoplasm. The teaching of Motz and Pearnearau, that all hypertrophies of the prostate arise from the submucosal or suburethral glands, is accepted. We are told that hemorrhage is more common in hypertrophy than in cancer. Twelve pages are used to describe the use of the cystoscope in prostatic hypertrophy. The final chapter of Volume I is taken up with neoplasms of the urogenital tract. The abandonment of the term hypernephroma is advocated

and "Nephroma" is suggested as a name for the kidney tumors of questionable origin. This section on neoplasms is the least satisfactory of the entire work—strange to say, aneurysm of the renal artery is considered in this section. Volume II deals with malformation and abnormalities of the urogenital tract; traumatism and foreign bodies of the Urogenital tract; ulcerative lesions of the external genitalia; diagnostic significance of special urologic symptoms; operations of urology; urology in infancy and childhood; testicular and prostatic organotherapy, and the study and teaching of urology.

The operative work is discussed in eight chapters—the operations upon each urogenital organ comprise a distinct chapter. There is no useless repetition. It is interesting to note that in the chapter on operations on the kidney no method of nephropexy is described. Naturally, perineal prostatectomy receives a great amount of attention and anyone who is inclined to perform this operation should study this work. It is just possible that the suprapubic route is followed so rarely in Young's clinic that its advantages for the average operator are not appreciated.

The numerous illustrations throughout the work are splendidly done; the pages are large and the type is clear. It is certainly one of the most valuable surgical publications that America has ever produced.

"Just what does 'keeping yourself unspotted from the world,' mean" asked the teacher, discussing the Bible lesson for the day with a class of youthful misses.

"Not letting yourself catch chickenpox or measles" was the unexpected reply.—*The Public Health Nurse.*

Professor (in an engineering class): "What's a dry dock?"

Student: "A physician who won't give out prescriptions."

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ORIGINAL ARTICLES

THE EMOTIONAL LIFE AND ITS IMPORTANCE IN THE PRODUCTION OF PATHOLOGICAL CONDITIONS*

CHARLES P. EMERSON, M.D.

INDIANAPOLIS

When the majority of those in this room began the study of medicine chemistry occupied a very small place in the medical curriculum, whereas bio-chemistry has scarcely been christened. Then there was practically no physical apparatus in the ward, while now the sphygmomanometer, the Roentgen apparatus and the electro-cardiograph occupy a large place. Other sciences also have been enlisted into our medical service, among them sociology, which now promises to play an important part in our work. A few years ago we supposed that the accidental meeting of the germ and the individual explained most diseases. Now the specific germ, while still indispensable in the production of some diseases, occupies a much smaller place because he is so frequently present. Also, the mere patient himself is not the chief actor. It is the community to which that patient belongs, the social group in which he lives (and this includes his ancestors), the meteorological conditions and all other elements which determine his environment, which aid in determining whether he is to be well or sick. We thought that since Indiana University is the only university which has a department of medical sociology the physicians of Indiana might be interested in the work of that department. We now will present one phase of its work, that of evaluating the influence in the production of disease of the emotional life of the patients who come to us for treatment.

The patient himself is the least able to evaluate his own emotions. We must talk to his wife, his neighbor, his friends, his boss. He may tell us the truth if he knows it, although he seldom knows; but again he may not be willing. We must have trained workers, not volunteers, to get for us the details of the history we need.

That the emotions can produce profound pathological conditions has long been known but

until recently this field could not belong to accurate medicine, since the danger of uncontrolled speculation was too great. It was necessary to wait until Cannon and others have shown certain definite relations between the emotions and physical functions, and especially until we had learned more about disease in general. Medicine should keep its feet on the ground and this is particularly important when we try to reach up into the emotional states of our patients. The fact that the emotions are concerned in the production of some attacks of hay fever and of urticaria every one admits, but, to our severe loss, our profession has failed to note the connection between the emotional states and long maintained muscular hypertension. The emotional forces, like all other forces, if not allowed to express themselves in one way, will do it in another. A lady tries to be always a lady. No matter what continual storms may rage within her she must be gracious and self-controlled. Where then will this emotional stress express itself? Particularly on the musculature; her poor spine "catches it," and therefore the chiropractors, the osteopaths, the spondylotherapists, the neuropathists, and so forth, are relieving these results of emotional states by massage, heat, thumping, and anything else that will relieve muscular hypertension. If this same woman happens to have a slight spondylitis also, then the pains of the arthritis will become more and more severe.

Among the group of cases of arterial hypertension is one with hypertension due primarily to emotion. That is, the emotions are important at first, but soon a definite mechanism, to which the glands of internal secretion belong, will keep it up. Among the cases of hyperthyroidism are many due primarily to the emotions. We do not refer to those cases of simple hypertrophy, or those with adenomas, or those the direct result of thyroiditis, although the emotions will make these worse, but to that rather large group in which tense emotional states are followed by exophthalmic goitre. You may remember that just after the war it was the opinion of many medical men, having in mind the great number of goitres that developed in the army, that the surgeon should not operate on exophthalmic goitre, that

*Presented before the Section on Medicine at the annual session of the Indiana State Medical Association, West Baden, September, 1926.

this belonged to the neurologist. Dana, in the last edition of his text book on nervous diseases, includes exophthalmic goitre among the nervous diseases and says that it is produced by distressing and powerful emotions combined with physical exertion.

Diabetes mellitus sometimes follows intense emotional crises, but more often is the result of long continued worry. This in part explains, according to Dr. Solis-Cohen, the frequency of his disease in his own race.

Before we go into a discussion of a few cases, we would emphasize the point that we would not claim that the emotion itself produces indirectly a physical lesion in a previously sound person, or indirectly in a diseased person. The majority of cases show a pre-existing weakness in the part later affected. For illustration, the fact that Indiana is in the so-called goitre belt may explain why these cases often have a thyroid lesion. In other parts of the country some other organs might be affected. Among the Jewish population the pancreas may prove itself to be the weak organ by the production of a diabetes mellitus under conditions of emotional stress.

As illustrations we will mention three cases in which our department of medical sociology was of assistance in diagnosis and in therapy.

The first patient, a woman of thirty-two, was admitted to the University hospital in 1922, complaining of goitre and sore throat. She certainly had a goitre and infected tonsils. Her symptoms were swelling of the thyroid gland, loss of weight, tachycardia, intense nervousness and intense tremor. Is anything lacking for a diagnosis of hyperthyroidism? Also, hers is an Indiana family, and her grandmother and her own sister had had goitres. This patient was well and strong before her present illness. When giving her family history she admitted that her husband committed suicide during an attack of depression, and that soon the pain in the head and the sore throat followed, and then the thyroid gland swelled, and the tachycardia, the tremor and all the other symptoms followed. Her basal metabolism was +65 per cent. The infected tonsils were removed and she was discharged. She came back four years later in a worse condition. She was then thirty-six years old. She was nervous, weak, restless, had a fine tremor, had lost weight, and complained of dysphagia. Polyuria and glycosuria were present. Her systolic blood pressure was 180 mm. Hg. The diagnosis then was arterial hypertension, acute goitre, and diabetes mellitus. The throbbing of the neck was out of all proportion to the goitre; the dysphagia and pressure symptoms in the neck were so intense that we even made a bronchoscopic examination under ether to see if there was any obstruction to respiration. There was some exophthalmos, but no von Graefe's, no Stellwag's and no Moebius' signs. The basal metabolism ranged from plus 40 per

cent to plus 48 per cent on six different occasions, and the systolic blood pressure from 110 to 180 mm. Hg. (Notice its variability.) She certainly had diabetes mellitus. The blood sugar at first was 218 mgs., and in a few days later 104 mgs. (Notice how quickly it dropped.) She did not respond well to her diet or to insulin; that is, the sugar would disappear and reappear almost irrespective of diet and treatment as though some more potent agent than these were controlling it. She blamed her hard work as explaining her symptoms. By that time, however, we had gained a little experience with that group and concluded that emotional strain was confusing the picture. The department of medical sociology found that this woman in her youth had been rather loose in her habits. Later, she married a good man who shot himself in her presence as a rebuke to her actions. At once began the difficulty in breathing, the difficulty in swallowing, within two weeks the swelling of the thyroid, and in four weeks she showed all the symptoms of hyperthyroidism. After the first admission she worried about her boy who was obliged to marry the girl they had not preferred. From then on she spent her nights dancing and roller skating and naturally was not able to work during the day, so asked for re-admission.

The next case is that of a young man twenty-two years old who was admitted complaining of an acute swelling of the thyroid and a tight feeling the neck. He had suffered many attacks of tonsillitis, and these infections, it was thought, had caused a mild thyroiditis. His story was that he had been sent to a southern state as the foreman of a gang on an important construction job. This was his first chance to make good and he was so ambitious to do well that he "worried himself sick," became very nervous, the neck began to swell, and he had to stop work. A few weeks later he developed tachycardia and so came to the hospital. He was a big, strong-looking boy with a large goitre over which an intense thrill could be felt. His basal metabolism was from +20 per cent to +30 per cent, and his systolic blood pressure 124 diastolic 70 mm. Hg. The eyes were slightly bulging, but there was no von Graefe's, no Stellwag's, no Moebius' signs, and no tachycardia. At once we accused this patient of not telling the truth. He then confessed that while in the south he became engaged and then had quarreled with the girl, whereupon she pretended to commit suicide, swallowing some pills and falling to the floor before him, screaming. The young man evidently took sudden leave from that part of the country and did not learn until later that the girl had only pretended.

The next case invites careful attention. An American woman, twenty-two years old, was admitted to the hospital in 1925 with a huge goitre, her neck measuring 39 centimetres in circumference (although the woman weighed only 122

pounds) and with a marked pulsation and an intense palpable thrill over the goitre, and extreme exophthalmos. Nevertheless, there was no Stellwag's, no Moebius', and only a slight von Graefe's sign. Her physical restlessness was so great that she could not lie still in bed. The tremor of the hands was fine and very rapid. Her speech was very rapid.

Her story seemed convincing. She said that the huge goitre had developed within seven days' time and that there had been no previous swelling. Her grandmother agreed that this was so, also the girls with whom she worked. She had previously been healthy. When this trouble began the doctor found an abscessed tooth and had pulled it. (Yesterday, may I digress to say, I presented to the sociological group a woman with a marked hyperthyroidism due to very distressing family conditions. Her story was so gross, so sordid, that one of the social workers listening fainted. During the past year her tonsils and thirty-two teeth have been removed.) This woman whose case I am presenting had only a very slight tachycardia and yet her basal metabolism was on several trials high, +117 per cent (i. e. 217 per cent of normal) due in large degree to her muscular tremors, for she could not lie quiet. Nevertheless, she gained weight on a moderately low diet. Her blood pressure was 130 systolic and 110 mm. Hg. diastolic. It is very important to state that her menstruation decreased with her illness and even stopped, and that with a basal metabolism always nearly +100 per cent she became more and more constipated as her disease went on. (Note the discrepancies in this picture: A girl, intensely nervous, in a tremor all the time, with a basal metabolism from +40 to +117 per cent, with a large goitre over which was a pronounced thrill, with exophthalmos, and yet with normal blood pressure, no diarrhoea, but rather the reverse, and diminishing menstruation). Again, we said to the students, "The true story has not been told. This girl was a subject of some intense emotional stress." About an hour later this girl called us to her bedside and told us this story, all of which was later confirmed.

Recently, in the South, she had married a man much older than herself. All went fairly well until one day this spring she heard screams and rushed out of the house just in time to see her husband shoot and kill his two brothers. She was the only witness and so was held by the authorities. On the plea of self-defense her husband was given life imprisonment instead of death, and yet he blamed her for his commitment, claiming that if she had made her testimony strong enough he would have been freed. He has since then (about three months) continued to blame her, has written her frequent letters, urging her to come back to the South and work for his freedom. Hers

certainly was an emotional stress very few have ever experienced and this huge acute goitre was one result.

The sequel to that story is of interest. She wished an operation on this huge pulsating goitre which we refused. Dissatisfied, she went to another hospital, under the care of a surgeon who was willing to operate. Whether or not she died on the operating table, I do not know, but she certainly died the afternoon of the operation. That is what may be expected in such cases as this.

In all such cases psycho-therapy alone will not cure. At least it is not true that by reversing the emotions we relieve the symptoms. Suppose that because of an anxious, emotional state a person jumps in a river with suicidal intent and the moment he reaches the water he repents. This repentance will not save him; his safety will depend upon his ability to swim or the ability of some one else to rescue him. To relieve this girl's emotional state and make her the happiest woman on earth alone would not remove that goitre. The vicious circle once started is not so easily broken. Neither will a case of diabetes mellitus precipitated by the emotions stop when the emotional states are relieved. If also the emotional element is prominent, you cannot diet these patients like ordinary cases of diabetes mellitus. They need a high diet and then to be kept sugar free by large enough doses of insulin. The sociologist is, however, of great aid in the treatment of these patients, for social readjustment must be made if other therapies are to be of value.

In conclusion, these patients with lesions precipitated by emotions constitute a group by themselves, a group in which those with goitre are quite different from the average cases of goitre; those with diabetes mellitus from other cases of diabetes mellitus; and the same is true of diabetes insipidus, and arterial hypertension. In these cases the aid of a sociological worker is quite as important in the therapy as either surgery or medicine.

DISCUSSION

DR. O. T. SCAMAHORN (Pittsboro): I heartily agree with the statement that all these cases are predisposed emotionally. In other words, the condition is caused by the predisposition. Not only do we have this in the group which Dr. Emerson has taken care of but in other conditions. I recall that a few years ago I had a patient who wished to raise a child on her breast, but had not been able to do this with two other children. I took the child in to see another doctor in Indianapolis, and on the way into the city the husband ran over a little negro boy. The woman screamed, and to my certain knowledge she never gave her child another drop of milk from her breast. She had the particular fear that she would not be able to raise her child and this fright stopped the flow

of milk. In another instance, a case of diabetes in a twelve-year-old boy, the patient had been sugar-free for twelve months. He attended a baseball game and was hit by a baseball, and the diabetes immediately reappeared.

To illustrate the other side of the case, I have a lady in my home town who is a Christian Science healer. Her husband developed influenza and was afraid he would develop a goitre. He did develop a goitre but the woman would not permit anything to be done for him. She prayed for him and did everything that Christian Science could conceive, but he did not have sufficient faith and so he died.

It is true that these cases must be differentiated as to their cause. Dr. Emerson has well said that the history must be well checked over. They will give a history that a certain thing caused the trouble. If you follow that lead you will not get anywhere, but if you will check the history carefully you will find a definite emotional or sociological basis. I think many of these cases should not be operated upon until one has gone over the entire complex to see whether or not it is a condition which surgeons may relieve. There is no cure for these cases that are caused by emotions through surgery because we cannot remove the cause in that way. We must attack them from a different angle, and differentiate between the emotional cases and the usual cases of the particular disease which is present.

CHARLES G. BEALL (Fort Wayne): The discussion of the results of experimental medicine is quite difficult. Most of us, unfortunately, are not able or have not the time to carry on experimental medicine. It is our duty, I believe, as practitioners, to assume rather a critical attitude in regard to experimental medicine, not in the way of harsh criticism, but to sift out what is the real truth. I confess that it is rather difficult for me to see how the emotions can pick out a certain gland and influence its secretion over prolonged periods to the extent that it will make the individual sick from that alone. For instance, the pituitary gland with its anterior and posterior lobes, the parathyroids and thyroids, the adrenals—those glands have one at least and sometimes two different kinds of secretion. Why should an emotion pick out one particular secretion? The fact is, we only know about the secretion from four or five of these glands. The other internal secretions we do not know much about. We know fairly definitely about a few of them. For instance, the posterior lobe of the pituitary, the adrenals, and we think we know something about the thyroid. These secretions may be influenced in both ways, either as an increase or a decrease. Why cannot the emotions produce a depression as well as an increase? Why should they in one instance produce a decrease and in another an increase?

To give an illustration, there is no question but

that injury does at times cause the development of tuberculosis in a joint, but there was some predisposing factor there which was the real etiological factor. I think that as practitioners we had better regard the emotions in their relationship to the production of internal secretion a good deal as we regard the injuries to the tuberculous joint—that they are a predisposing factor but by no means the most important one. I think Dr. Emerson has made this clear, and do not believe he thinks the emotions are the greatest factor in these disturbances of internal secretion. It seems almost impossible to take individuals away from psychic trauma. There is no one of us who during two or three years of life will not have severe psychic trauma. The general practitioner is a pretty well recognized social service worker himself. He knows his patient's life and environment. It is the modern environment which has made necessary the social worker. Perhaps that trained group can do the work better than the practitioner, but I am inclined to doubt this, in general. Such work in the city has given us wonderful results. It is an experimental department of the social service department, and we will undoubtedly get some happy and applicable results from it.

SOME NEGLECTED FACTORS IN THE GOITRE PROBLEM*

MAYNARD A. AUSTIN, M.D.

ANDERSON

Picking up a circular the other day, I saw two statements that are particularly apt for use in beginning this paper. One was a quotation from John Morley, which said, "The greatest difficulty in life is not to learn, but to unlearn." The other, a quotation from John Howie Wright, which said, "Men fail because they do not want to learn. Then they ascribe their failure to bad luck. The men who have good luck are those who learn and use what they have learned. They learn. They think. And they succeed."

The doctor, of all professions, probably has more to learn and more to unlearn than any other individual, and just as he is capable of investigating and using with caution the fads and fancies of medical arts and science so can he measure the ultimate outcome of his professional career. There are two classes of men in medicine. The one whose knowledge showed its greatest development the day after he received his diploma, and whose bump of wisdom has shown a gradual atrophy ever since. The other is the one who is conscientious and faithful to his clientele in that they may always know he is trying to overcome their most serious pathologic disturbances with the most certain and safe means for their relief.

Scientific medicine is undergoing a radical change in this generation due to the fact that in

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order to obtain a diploma from any regular A grade school, one must be mentally alert and competent and have had in the average, a greater experience and a broader training than they would have had in half a lifetime of private practice. But the time and expense of this training is demanding that they seek the places where a fair return can be made, and instead of medical practitioners, we are developing a generation of medical specialists, too expensive for the average layman to consult as he did his old time friend and councilor, the family doctor. Whether so-called scientific medicine will gain for the public as much as the public loses in the lack of contact with a type of consultant that is rapidly passing away, only time can tell. We must acknowledge, however, that the public is needing such a type of friend and councilor, and if the regular medical profession fails to give what is demanded, then the public will find a substitute in some cult or pathy, as many of the people are now doing.

Each generation of practice has found some special problem to solve, in surgery, medicine or hygiene. The field of endocrinology has been opened up to a score of capable investigators and much worth-while information has been gained. Much worthless literature has also been sent through the mails, offering mixed gland cure-alls for every ill to which flesh is heir. And in only one instance has more false teaching been advanced, and that was the fad of injecting vaccines into our patients for everything from ingrowing toe nails to alopecia areata.

Since goitre is one of our endemic pathologic curses and we are living in a so-called goitre belt, the problems of thyroid dystrophy are of the greatest interest to every one of us. We have not so many of these patients as in Michigan where, especially in the northern part, a third of the population is affected, but we have more than we should have, in view of the fact that the majority of these cases could be prevented by giving iodine through the adolescent years from eight to sixteen. But it is not these benign types that we worry about.

Hutton's classification seems to be the simplest of all I have seen. He divides goitre into four classes: 1, colloid; 2, adenoma, with or without hyperthyroidism; 3, exophthalmic goitre; and the fourth class includes the infections and malignancies.

Diffuse colloid goitre occurs during adolescence, menstruation and pregnancies. It is endemic in character, is uniform in its enlargement and smooth on its surface. Symptoms are always due to pressure or hypothyroidism, but rarely if ever give rise to hyperthyroidism. It may be prevented by iodine prophylaxis, or cured by iodine treatment.

Adenoma without hyperthyroidism also occurs during adolescence, menstruation or pregnancy, is

endemic, with nodular enlargements and assymetrical and may develop hyperthyroid symptoms at any time; is frequently made worse by iodine treatment and surgery is frequently indicated either as a cure or to prevent hyperthyroidism.

Adenoma with hyperthyroidism is the development of hyperthyroid symptoms after a period of latency that may last for years. And these hyperthyroid symptoms may be a part of an endocrine explosion, brought on by some intercurrent infection, or some emotional disturbance, such as shock, fear, pain, worry, or grief.

Exophthalmic goitre is the development of hyperthyroid symptoms with or without thyroid enlargement, and the development of a chronic invalidism which is of such a nature that authorities are now questioning whether this is a true goitre problem, any more than an enlarged spleen during typhoid should be classed as a splenomegaly. In fact there is such a reaction to poor surgical end results in many of these cases of true Graves disease, that Bram has placed Graves disease at the head of his list of non-surgical thyroid conditions. His classification includes in this list colloid goitre, parenchymatous hypertrophy and the hyperplasias of puberty. In the surgical class of cases he places all the adenomatous, cystic and malignant degenerations.

We must leave the question of classification of exophthalmic goitre to the future, and accept the present viewpoint of dysthyroidism as causing much of the symptomatology. We can even be safe in our ordinary acceptance of Bram's classification of surgical and non-surgical goitres. But one thing we can not be too careful about, the advice for an operation and the promise of permanent relief afterwards. I have seen non-surgical types develop into surgical emergencies. I have seen surgical types recede as if by magic when environmental and emotional irritations were removed. And I have seen far too many hopeful invalids return from our great clinics after a thyroidectomy, only to become more hopeless invalids than before.

And this brings us to the story I wish to tell. Crile has well said that "The thyroid is not essential to life but it is essential to all that which makes life worth living." He also says that hypersecretion of the thyroid hormone is the central feature of, if not the actual cause of, hyperthyroidism. But hyperthyroidism does not occur but with the greatest infrequency among the inferior races, among the indolent or dullards of the higher races or among degenerates, morons or the insane. It must therefore be the product of the strain and stress of our civilization, flourishing among the driving, compelling, ambitious, conscientious and hypersensitive personalities.

It seems that the price we have paid for our luxuries is at the expense of the emotional reactions, we are required to live up to, or fail to gratify, and the result is an endocrine imbalance and an endocrine explosion. In a more primitive

way we associate and see in our every day's work evidence of slight temporary thyroid hyper activity. Fear, shock, worry, fright, bad news, sight of blood, will produce tremor and nervousness, sweating, rapid heart's action and other of the commoner manifestations of hyperthyroidism. Whether this is due directly to sympathetic vaso motor stimulation, or secondary to stimulation of the thyroid and a temporary flooding of the system with thyroid hormones, is still a debatable question.

We have then this fact to consider. Surgical procedures are necessary as the result of living at too rapid a rate, and brought by over-stimulation from social, sexual, financial and all the other ways we have of competition, and aggravated by the further stimulation of high protein diet, alcoholics and tobacco poisoning.

While these are basic causes in many cases we do have our adenomas in a class by themselves, because they are an over-development of the secreting cells, usually encapsulated and neoplastic in formation, and because of this tumor of foetal inclusive cell type, we have them developing thyrotoxic symptoms with great rapidity at times, or undergoing rapid malignant changes. Basedow's disease is the development of a rapid thyrotoxic condition, superimposed upon a pre-existing benign and symptomless adenoma. Graves disease should be applied only to those cases of true exophthalmic goitre.

With sufficient knowledge to make a correct diagnosis and suggest to our patient the need for medical or surgical treatment, we have far too often failed to get our hoped for improvements because we have been too hasty in taking our case histories. We get the family history, but how many times do we inquire into the family environment, whether the patient is supporting aged and invalid parents, or helping keep a home for some one else besides themselves. Whether they are occupied in a vocation that is what they desire most to do, or are doing what they do because it pays them best and they can't afford to make a change. If they are adolescent patients we need to know the kind of parents, for many children, especially girls, are being hastened to destruction by forcing them socially to acquire luxurious tastes that should only be the privileges of the successful wife of men of years of discretion. One good woman has well said to me, "What has the younger generation left to look forward to?"

But most serious of all and the one factor we can do the least to help is the overshadowing spectre of what Brams has so well called "love starvation." Mothers with too many social duties to be real mothers to their children or real wives to their husbands. Husbands with too much business to be thoughtful of their wives, and consider an open purse able to supply the never-ending desire for affection, sympathy and understanding. And also we must consider that the sexual life of

an individual is just as normal as his digestive or respiratory demands, and sex repression is all too often a decided factor in married as well as single men and women. My interest in this during the past five years has shown me that ignorance of a real erotic personality in the average individual is the only cause for many people sticking together after they are married, and the fact that they learn what it means from some one who can satisfy them, is the real cause for many divorces.

Again do we have another class who are unfortunately deprived of ordinary social outlets and are forced to live lives of solitude and loneliness, or whose ideals are beyond their attainment. Who are forced to live in environments that are distasteful, irritating and nerve-racking, when all they crave is a place where they may be quiet and content.

Just as we know that the causes of our nervous breakdowns and emotional nervous disasters are usually the result of past mistakes or failures, moral conflicts and strange fears, possibly carried through childhood and adolescence, *so may we have these facts as bearing upon not only the cause of our toxic thyroid dystrophies, but may be the determining factor in the ultimate cure of our patients.*

I know that I have been told when discussing this subject that if we cured some of our patients we would have to furnish new wives to some men and new husbands to some women, furnish husbands to some old maids and sweethearts to some bachelors, change the occupations of many others, furnish homes to the homeless, children to the childless, friends to the lonely, quiet for the discontented, peace for the unhappy, a purse of gold to the poor, and a knowledge of a better use of money for many of the sons and daughters of the well-to-do. But if we know that these are often the actual needs of our patients in addition to the aids which medicine and surgery can give, we should not permit ourselves over-enthusiasm in promising more than we can hope to do. It is those false promises that are taking fifty per cent of our able-to-pay patients into the consulting rooms of various cults who do one thing we have too long neglected. Give them mental training in control of the subconscious mind, which we have too often overlooked.

Crile has emphasised this point in all his recent articles on both hyperthyroidism and hyperacidity whose analogy is very evident. He says "The incidence of peptic ulcer and hyperthyroidism is highest in those men and women who are carrying the white man's burden of civilization. Moreover as is indicated by the peculiarities of these individuals, the successful management of both these conditions requires a re-education, a new point of view regarding life, a new philosophy, no less than rest and diet and surgery. In each of these conditions, therefore, the result of medical manage-

ment which ranges from no relief to permanent recovery, depends upon the personal equation of the medical advisor as much as upon the personal equation of the patient."

Bram stresses this art of management of these cases so much that he devotes several pages in his very excellent new book, on the personal equation of the physician and the tact, sympathy and other attributes necessary to bring these patients under proper control, leading them on to a place where they truly appreciate his advice, authority and discipline. The doctor's equipment should be such that he can enter into the inner life of the patient, and even participate in their feelings and emotions. These patients, more than any others that I know of, are entitled to our deepest sympathy and kindest care, although many of them when they come to us are so full of self pity that it would take more than we could give of our time and efforts to re-educate them. Recently Dr. Crile made this remark to me, "God help the husband or wife of a hyperthyroid spouse," but he could have said also that their emotional responses were often such as to make them over-responsive, over-sympathetic, overly passionate and overly conscientious. They live their lives as extremists and know no middle ground of moderation. In Graves disease we have an added mental change at times, of true hysteria or melancholia. These individuals lead as much a double life as the far famed Dr. Jekyll and Mr. Hyde. And unfortunately the veneer of civilization is so thin that in these patients we often see some religious, patriotic or esthetic inspiration attempting to hide a most primitive type of brute underneath.

But no one has better said these things than the master of medicine, Sir William Osler, who wrote as follows:

"Curious odd compounds are these fellow creatures at whose mercy you will be. Full of fads and eccentricities, of whims and fancies. But the more closely we study the little foibles of one sort or another in the inner life which we see, the more surely is the conviction borne in on us of the likeness of their weakness to our own. The similarity would be intolerable if a happy egotism did not often render us forgetful of it. Hence, the need of an infinite patience and an over-tender charity towards these fellow creatures."

As a final summary let me say these few more words:

Thyroid dystrophies are both medical and surgical. Medical cases may become surgical emergencies at any time. But whether medical or surgical they are both conditions of long standing, brought about by disadvantages of civilized living and habits, producing emotional and nervous changes which will be permanently improved only after a long period of observation. The prognosis should always be favorable if the environment of the patient is such as to make for him or her, less strenuous living, more friends and friendships of

the kind they crave, and in spite of their peculiarities, tactful management may bring out their own submerged personalities, often amounting to little less than genius, which we may some day find has its source in the thyroid hormones.

DISCUSSION

FRED H. AUSTIN (Bloomington): The family physician is passing away. I am old enough to have been a family physician but I do not feel that I am one, because the great majority of my patients come to me today and go to somebody else tomorrow. I think this is true of nearly all of us—we cannot feel that we have entire control over our patients. As the essayist said, in some respects that is a loss to the community, but we must adjust ourselves to conditions rather than to deplore the fact that the family physician is no more.

There is one important phase of the matter, and that is the idea of the medical practitioner referring his cases to the surgeon and insisting that his judgment is right as to whether the case is operable or not. The medical man and the surgeon should get together, there should be co-operation and a willingness to consult one another. I feel if we can get this adjusted the question of the family physician would be solved. Sometimes the medical man needs the judgment of the surgeon more than his skill.

M. O. ROBERTSON (Bedford): I wish to emphasize the point the doctor made about our patients going to the chiropractor, the osteopath, and somewhere else because of a promise of recovery that we cannot give. The doctor should be very careful in his prognosis in all cases. We know he is often misquoted. The patient judges us by our prognosis. If our prognosis is not fulfilled, the patient and all of his friends know about it and a black mark is made by each of them, not only against the doctor whose prognosis was not correct, but against the entire medical profession.

J. H. EBERWEIN (Indianapolis): The surgeon and the physician have not only the problem of administering medical and surgical treatment to the patient, but one of the very important points of the doctor's paper is that we are called on for management of the patients. That is, we go into the history, the environment, social relations, etc., and try to solve the many problems in that connection.

MALARIA THERAPY OF PARESIS*

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Much skepticism has been expressed recently as to the value of specific medication in paresis and tabes because no very striking advance has been offered along the line of chemotherapy. It is a well known fact that when the spirocheta pallida has invaded the brain and spinal cord it appears to be extremely difficult to eradicate because in these

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tissues a more favorable environment has been found. Since cases of paresis and tabes are less liable to suffer from syphilitic lesions of the skin and mucous membrane and the activity of syphilis is obscured, the nature of the condition is not recognized until marked pathological changes in the nervous system are evident. When this occurs it is with great difficulty that the ravages of the disease can be prevented and arrested.

Considerable improvement has occurred in these cases in the therapy of arsphenamine and tryparsamid, but the treatment of these diseases by inoculation with malaria gives hope of one of the most astonishing achievements of modern therapy.

Professor Wagner-Jauregg, chief of the psychiatric clinic in Vienna, had noted as far back as 1887 that parietic patients had a tendency to improve following attacks of intercurrent infectious disease and since that time he has made numerous attempts to produce a similar condition artificially with the hope of obtaining the same end results.

The writer in a symposium on paresis before the Indianapolis Medical Society fifteen years ago, in tabulated statistics as to the duration of life of two hundred and nine cases of paresis, called attention to the fact that five cases out of six of that series, who a number of years previous had contracted typhoid fever at this institution, during an endemic here, at which time we had twenty-seven cases, were not only alive six years later, but had greatly improved. No scientific significance was given to this incident at that time as it was considered then merely as an accidental phenomenon. However, from our present knowledge of scientific facts relative to the reaction of high temperature in parietic patients it is very likely these parietics were greatly benefited by having had typhoid fever.

Paresis is a disease which has been recognized since 1822 but its cause until comparatively recent times was unknown and almost unsuspected. Virchow as late as 1898 stated that definite anatomical proof of syphilitic infection of paresis and tabes is seldom found and that the inefficiency of antisiphilitic treatment in these diseases was further demonstration of their non-syphilitic nature.

Fifteen years ago the cause of the disease was, however, conclusively established, and the knowledge necessary for its prevention was gained. Five years ago, exactly one hundred years after the discovery of the disease, this new method of treatment by malaria was devised.

How malaria brings about changes in these cases is as yet not definitely known. The view that holds the field at present is that the high fever produced (104 degrees) by malaria, destroys many of the organisms that cause the disease and debilitates those that survive, so that they become harmless. It is definitely known

that the organism of syphilis fails to grow at a temperature above 104 to 106 degrees F. Weichbodt and Jahnel have shown experimentally that the complete disappearance and death of spirochetes present in scrotal chancres in rabbits could be brought about by exposure of animals so infected to temperatures from 107 to 110 degrees F. provided such exposures were repeated at least three times.

Among the several hundred cases of paresis treated with malaria which have been compiled by various workers, complete remissions have occurred in 26 per cent, and satisfactory remissions in 18 per cent, the remissions being more complete and longer than in spontaneous remissions or remissions brought about by any other treatment. Spontaneous remissions vary in from 3 to 5 per cent of cases and last at times from one to two years, or even longer, therefore, no more definite conclusions as to the cure can be made until a longer time than that stated above has elapsed. In some of our cases there occurred improvement in the pupillary reaction to light. In others the patellar reflexes apparently returned to normal and improvement in sight with optic atrophy improvement also occurred. Improvement in speech defect has been especially noted. The serological improvement has also been quite marked. The pleocytosis disappeared, the globulin reaction became weaker and the blood Wassermann tests became negative in a few cases. This usually occurred before the fluid Wassermann test which Wagner-Jauregg considered unimportant for prognostic significance.

The outstanding improvement has been on the mental side and this has been proved particularly by the performance of intelligence tests. Memory for recent events which is so characteristic a disturbance in parietics, showed very marked improvement. It is not to be understood, on the other hand, that these patients were free without exception from residua of all kinds.

It might be emphasized here that the great majority of cases committed to institutions of our type are well advanced in the second and even third stages of the disease and that much better results are to be expected when this treatment is employed during the incipency of the disease. Thus many of our cases were not very promising, but in choosing them we did so more or less indiscriminately.

The methods of inoculation used by us were the intravenous and subcutaneous methods which are considered the best. Using every antiseptic precaution, two cc. of blood are withdrawn from the superficial vein of the forearm of the patient and injected immediately into the vein or into the subcutaneous tissue of the scapula.

The period of incubation varied from five to twelve days; the average being from ten to twelve days. We noted that it required a longer period for colored patients where the reaction was slower.

The number of paroxysms allowed before medication was from eight to twelve; the average being ten. When the required number of paroxysms had been manifested the patient was given five grains hydrochloride of quinine three times a day for five days. Treatment was then discontinued for four or five days, and then three grains of quinine was given three times a day for nine days. None of our patients had any further chills after the first day of medication. With the quinine we also gave small doses of digitalis to sustain the heart. Changes in the serological fluid are not to be expected until six months after the treatment.

In many of our cases we noted improvement in from four to six weeks after the treatment and a remarkable gain in weight was the most pronounced indication. No enlargement of the spleen was noted. In a few cases convulsions were noted during the treatment and only one case, a colored patient, failed to respond to the treatment. This patient, however, has intense perspiration which might be considered as an equivalent to the malarial reaction. All of our cases were inoculated about four hours before the expected chill.

The following represents the tabulated results in three to thirteen months after the treatment:

Therapeutic outcome in sixty cases of paresis by malaria inoculation.

	Number.	Per cent.
Full remissions	14	23.33
Moderate remissions	7	11.67
Slightly improved	16	26.67
Unimproved	18	30.00
Died during malaria	1	1.67
Died subsequently	4	6.66
Total	60	100

In the fourteen cases, or 23 per cent, grouped under full remissions are included those patients who were able to be dismissed from the hospital and return to their former occupations. These patients presented a minimal degree of deficiency in the intellect and presented complete insight in the nature of their illness.

In seven cases, or 11.67 per cent, grouped under moderate remissions, are included those cases who have been returned home and who are making fairly good adjustments but who have not been enabled to resume their former occupations. They are more or less unreliable and where their previous occupation has been one which carried a certain degree of responsibility they have not been enabled to meet it. In this group the personality is still preserved and there is no evidence of dementia.

In the sixteen, or 26.67 per cent of cases slightly improved, are included those who have presented a decidedly improved institutional adaptation and who have markedly reacted from a state of marked deterioration, but who are still obviously general paretic patients. The patients

of this group have all greatly improved in weight.

In the eighteen, or 30 per cent of cases, represented in the unimproved group, are those cases in which little or no improvement was noted following the treatment. In this group were included largely a type of cases in which great structural damage had already occurred at the time the treatment was instituted. In these cases irreparable and irrecoverable anatomic changes were present which would preclude the possibility of even a partial restitution of function.

Death occurred in five cases of this series. One patient died during the malaria a few days after he had had a second chill, of acute cardiac dilatation. The other four died sometime after their inoculation and the causes of their death had no connection with the malaria.

Inoculation with malaria is, for the patient, a more or less severe ordeal, for it greatly diminishes his strength. The course of the malaria must therefore be carefully controlled, both clinically and microscopically, in order that the treatment may be promptly interrupted if the patient's life seems in danger. Patients with a very high temperature must be under constant supervision of the nurse both day and night, since the delirium may appear at any time.

Contraindication for malaria treatment is marked debility. This is not so much on account of the danger from complication as from inability to withstand the necessary number of febrile attacks, so that treatment must be stopped before the desired results are obtained.

Other contraindications are: Severe affections of the heart and kidneys. Slight and compensated valvular lesions, such as mitral and aortic insufficiency, are not to be regarded as absolute contraindications; in these cases the danger of acute cardiac insufficiency and sudden collapse is not great. Myocardial degeneration with severe symptoms of insufficiency is not a definite contraindication. Arrested tuberculous lesions in the lungs and other organs are not contraindications. Unusually obese persons must be watched, especially during the febrile attack because collapse from loss of strength, diarrhoea and vomiting may occur.

In spite of all contraindications mentioned, however, there is no great necessity to adhere rigidly to them, because in the event of the appearance of alarming complications during the febrile attack, the latter can be promptly arrested by the administration of quinine.

It is still too early, however, to evaluate these results definitely and I further wish to impress that the malaria treatment should not be given outside of a hospital. So much can be said and can be clearly demonstrated, that the malarial treatment modified at least the course of general paralysis.

The attempt to cure one disease with another is a new departure in therapeutics, and we know definitely that in this treatment the metabolism of

patients with general paresis is greatly altered and that the fever treatment is preferable to any other method.

CONCLUSIONS

1. A strain of plasmodium malaria may be passed from patient to patient indefinitely. Our strain up to the present time has successfully been passed through eighty-nine hosts.

2. The sixty cases incorporated in this series have been under observation from three to thirteen months after inoculation. The remaining cases are not included as the period of observation after treatment has been too brief to permit of any definite conclusions.

3. The malaria treatment of paresis apparently produces a larger percentage of improved and arrested cases than any other method of treatment.

4. The tentative conclusions can be verified only by a longer period of observation of cases treated.

5. The treatment is easily controlled and with ordinary hospital care should present no serious difficulty or constitute an unusual risk.

6. The earlier the treatment is instituted the better the results.

7. Inoculation may be made at any time during the course of the malaria but the most satisfactory time is just before the expected chill.

8. Some cases are immune to inoculated malaria and this is especially true of the colored patients.

9. Inoculated malaria is very sensitive to quinine. None of our cases continued to have chills or fever after the administration of the first five grains.

10. Physical, mental and serological improvement is noted in malaria treated cases.

11. Inoculated malaria cannot be transmitted by flies or the mosquito and consequently there is no danger of spreading malaria to the community.

12. Recoveries of general paresis by other modern methods of chemo-therapy, as the arsephenamins and tryparsamide, have up to the present time fallen short of our expectations. Remissions by these methods of treatment are of comparatively short duration.

13. Malaria-therapy should be confined to hospital application and cases previous to and after inoculation should be subjected to complete physical, psychiatric and laboratory examinations.

14. The hypothetical suggestion is offered that the failure of any improvement in 30 per cent and the only slight improvement in 26 per cent of our cases is due to the fact that the anatomic changes in more advanced cases are beyond the possibility of functional restoration.

15. The average period of incubation was ten days and the longest period was twelve days, the shortest five days. The period of incubation appears to be a function of the adaptation of the parasite to its host.

16. The period of incubation appears not to be changed with the number of passages of the parasite through the human body.

17. The number of cases that have sufficiently improved within thirteen months to be returned to their homes has increased from 14 per cent to 35 per cent. The number of deaths within this period have decreased from 20.16 per cent to 8.33 per cent.

DISCUSSION

G. A. ESTEL (Madison): This subject is at the present time widely discussed and promises some hope of making the future prognoses in this disease more favorable. With us it is probably the best treatment employed in this condition. True, it differs from our former therapy in that we depend for results entirely on the physical reaction of the system to the invading organism, which in this case is the plasmodium malariae, and it is only by exposing the spirochaete to the repeated high temperatures caused by the paroxysms of malaria that it becomes non-virulent and in many instances is completely devitalized. Through the courtesy of Dr. Bahr, whose hospital has furnished the necessary material to carry on this work, we have recently instituted this treatment at the Southeastern Hospital, and I will try to give you a short account of our work there, which covers only cases treated during the current year.

Since it requires some time before definite changes become evident, I am scarcely in position to give you a well tabulated account of the work done there and we are hardly justified in drawing conclusions from the progress at the present time. This group of patients has been selected from the general admissions and probably has not been the most promising. Some of these cases have had mercurial injections, some have had arsenic; but all gave a positive Wassermann. The technique and organism employed in the treatment are those described by Dr. Bahr. We have a series of twenty-four cases with the following results:

There was no full remission in any case, due to the fact that the time since the treatment was finished in most of the cases has hardly been sufficient for them to develop any satisfactory changes. We have four cases that have shown marked improvement; thirteen slightly improved; two, no improvement, and one who died during the malaria from acute dilatation of the heart. We have subsequently had four deaths, but these had no connection with the malaria paroxysms, as they were cases far advanced with symptoms of general paralysis.

While these patients are somewhat improved, the improvement has been rather along the mental and nervous line, but as far as the serology of the cases is concerned there has been no definite improvement. The experiences of others, however, have shown the most marked results in this direction.

In general, the outlook is favorable, and the fact that the improvements are in the lead is encouraging. In view of the rather recent reports on this method of treatment, and up to the present time the hopeless condition of this disease, any effort to bring relief to this class of patients should be supported, and I feel that with the encouragement the doctor gives us we will use all possible care to uncover the early symptoms of these cases so that in the future we may hope to gain still more satisfactory results.

ALBERT E. STERNE (Indianapolis): The members of the profession of this state and the people of this state ought to feel highly gratified to realize that work of this character is being carried on in the institutions of Indiana. It is a tremendous step in advance; and when you consider the pitiful, tragic end of practically every case of paresis, the results obtained and demonstrated so clearly by Dr. Bahr should be a source of the utmost gratification to all of us.

I do not agree with Dr. Bahr when he says that there is, practically speaking, any contraindication for treatment by this method, because without it you are confronted with a danger equally great, if not greater, than the risk which attends this treatment. In private cases, which offer a more favorable outlook because of the fact that they are usually in the more incipient stages, this method of treatment has not been employed sufficiently to definitely determine what could be accomplished. Naturally, the institution cases are apt to be those which have run along for a considerable period of time, and which have been found impossible to care for in their ordinary surroundings, and they usually present far advanced pathological conditions, which it would be unreasonable to expect to be modified by any method of treatment. When you keep in mind the widespread pathological effects of syphilis, it is not surprising at all that the improvement is along the psychic and mental side rather than the physical side. We must not expect from this treatment, or any other, that the damage which already has been done to the central nervous system should be repaired. That is out of the question. But if we keep in mind that a great many of the clinical, protean manifestations of syphilis of the central nervous system, paresis included, are along vascular lines, then if it is possible by this method to obtain a better state of vascularization, a better state of nutrition, with the resulting bettered condition of the brain cells themselves, we can readily see that we sweep away, at the same time, the heavier toxins from the system, and this treatment would favorably modify the psychic side, which is the side, by the way, which confines these individuals in the state institutions. Minus the mental debility most of these patients could be outside, despite the fact that they show such marked physical impairment.

Dr. Bahr has so justly and carefully portrayed this subject, with all the knowledge that we

possess up to the present time, that it is almost impossible to add anything to what he has said; it is merely possible to call attention to the fact that we must not be carried away and expect the impossible from this, any more than we do from the various chemical methods with which we treat syphilis. In this connection let me say that many years ago I had the pleasure of making a number of observations in the tropical countries, and this last year in South America I took occasion to look into the matter considerably more carefully, because this subject is a live one. In Mexico, where for a number of years I have been interested and have had opportunity to look into the medical side, I have noticed that down in the low lands in the isthmus where they have a great deal of malaria, we see unquestionable cases of clinical paresis along with the malaria and coincident with it. The same thing is true in South America. In Buenos Aires they are building an enormous institution for the treatment of syphilis, that will carry the malaria treatment along with other forms of treatment.

Personally, I am indebted to Dr. Bahr for his careful study of these cases and bringing this matter not only to us but to the people of Indiana, giving an outlook to a class of patients whose prospect, heretofore, has been extremely unfavorable.

CHARLES STOLTZ (South Bend): This paper shows an enormous amount of work and enthusiasm which should be commended. But these alienists should not be allowed to get away with the idea that the treatment of one disease with another is new. Coley, two decades ago, treated cancer, particularly sarcoma, by inoculating with the mixed toxin of erysipelas and prodigiosus. We may also recall the efforts in this direction of the late Dr. Oscar A. King, and the late Dr. Bayard Holmes in the treatment of dementia praecox—whatever that is.

Dr. Bahr's treatment may bear fruit or it may fall into innocuous desuetude as did these and other previous similar forms of treatment.

FRANK W. CREGOR (Indianapolis): I think Dr. Sterne said a good thing when he said that Indiana owes a debt of gratitude to Dr. Bahr for bringing this work to the point which he has and I think the members of the medical profession owe him an especial debt of gratitude for presenting it to us in this manner.

Syphilis is a tissue disease; the future of the syphilitic is written nine weeks after he acquires his infection. At that time all of the tissues of the body have been invaded, the nerve tissues as well as the others. Were it not for the defense mechanism of the individual, everyone who acquires the disease would be destroyed, but we know from clinical observation and from other sources that the disease becomes quiescent, and that something happens as a result of this stimulation of the defense mechanism of the individual a few weeks after the infection has taken place.

The future of this condition depends on the individual—it requires something to happen within his body that activates this process; consequently it is being activated in tissues that are somewhat different, or the organism has undergone a change from the conditions existing at the time of the original infection.

As to the question of malaria compared with the other means of treatment that we have been following for a long period of time, it has been shown conclusively that the spirochaete is destroyed during something like nine cycles wherein the temperature has been from 105 to 106. So much for the fever treatment. It is likewise true that the defense mechanism of the individual is stimulated to the highest points as a result of the reaction to this acute infection of malaria. It is also true that the vascular reaction to this acute infection means the bathing of tissues with a blood supply that they probably have not received heretofore, which accounts for much of the good results that are secured from the malaria treatment.

It is unfortunate that we are treating one infection with another in a way. The scientific world is looking for something that will do what malaria is doing, that is, destroy an infection that is to a certain degree a horror in the minds of the profession as well as the public. It is true that the medical profession all encounter syphilis, and it is also true that only a small percentage study syphilis intensively. So I think we should look on paresis as a disease which has been activated by something, and consequently the syphilitic patient should try to live in an environment as free from such an experience as it is possible for him to do.

CHARLES D. HUMES (Indianapolis): May I ask Dr. Bahr if he has any data that would prove the lack of wisdom in the early treatment of syphilis. It seems to me if we had data in regard to the amount of early treatment it might be a very good lead for us to follow in order to prevent this so-called terminal condition of syphilis of the central nervous system.

I would also like to ask if the essayist accepts Noguchi's classification, i. e., that there is a particular type that has a predilection for the central nervous system?

MAX BAHR (closing): We in public institution work are frequently unjustly subjected to much criticism, consequently it was very necessary for us to undertake this new procedure with great caution. Since in paresis we are dealing practically, up to the present time, with an incurable disease, a chance of any form of treatment that will give a ray of hope is justifiable.

These findings are not conclusive but represent our results after thirteen months. What these statistics will show in from two to five years hence cannot be determined now. Twenty-three per cent of these patients are back on their old jobs, and a

total of 35 per cent have been returned to their homes, while the greatest number in previous years that we have been able to release from the hospital was 14 per cent.

Replying to Dr. Humes, 3 to 5 per cent of all syphilitics develop paresis. Two reasons are given for neurotrophic syphilis: First, it is believed by some pathologists that there is a special neurotrophic strain of spirochaetes which attacks the nervous system. Second, which I believe is more apt to be correct, that is, that there is a predilection on the part of the nervous system, that is, here is a vulnerability or a *locus minoris resistencia* in this locality.

You are all familiar with the proverbial expression that the causes of paresis are syphilization and civilization. I would like to add two more modern causes, and they are mercurialization and salvarsanization. I mean thereby, that since the extensive use of mercury and salvarsan in the past two decades, paresis has increased from 3 to 5 per cent. The explanation for this is that since the clearing up of the skin manifestation by the early intensive treatment, the defense mechanisms have been broken down and the natural immunity afforded by the cutaneous symptoms have been destroyed. This natural immunization protects the nervous system, as for example, in countries where the original character of syphilis still exists, as in China, India and Africa, paresis is practically unknown.

We are familiar with the fact that 80 per cent of our patients give a history of never having had a skin eruption, and if they did have, it was so slight it passed practically unnoticed. Another fact which we have observed is that the incubation period of paresis has been shortened from nineteen years to nine years in the past two decades by reason of the facts as stated, that the natural immunization has been destroyed and consequently the nervous system made more susceptible.

The observation of these facts as stated has lead to some very interesting speculations from a therapeutic standpoint as to the future treatment of syphilis, and especially the prevention of the so-called metasymphilitic conditions, as paresis and tabes. The suggestion has also been offered to shift the more malignant neurotrophic form of syphilis to a more benign dermatrophic type as might be brought about by counter irritation or a secondary infection of the skin.

PATHOGEN SELECTIVE VACCINE*

D. E. KAUFFMAN, M.D.
MONROEVILLE

The object of any vaccine is to stimulate in the patient the production of antibody formation, which antibodies are specific for a certain organism. The rational application of any vaccine therapy presupposes a correct bacteriological diagnosis.

*Read before the Fort Wayne Medical Society, April 20, 1926.

It would be difficult to talk at any length about vaccines without referring to focal infection. It is not my purpose to go over the long list of diseases attributable to this condition. However, there is a certain group of cases which has for its origin focal infection about which I wish to refer. We all have seen cases which show some manifestation of focal infection, whether it be a myitis, neuritis, neuralgia, or arthritis, whose symptoms still remain after the eradication of the focus. They have their tonsils removed, sinuses drained, appendix removed, gall bladder drained, have suspected teeth extracted and prostate massaged, but they still have their original complaints. It is this class of cases, in particular, and its relation to pathogen selective vaccine about which I am going to speak.

Dr. Myer Solis Cohen,¹ of Philadelphia, has contributed some very valuable experimental and clinical work in the last five or six years. He said in 1923 that the most serious "misconception in regard to focal infection is the tendency to regard as the source of infection the organism found on culturing the supposed focus and to ignore the defensive reaction of the patient. Yet, in cases of diphtheria and typhoid carriers, we recognize that virulent organisms may be present in an individual without being pathogenic for him. Depending upon this immunologic response, therefore, each individual is either resistant or susceptible to a given pathogenic organism."

In 1919 Heist and Lacy,² working together, utilized the following method of determining the resistance or susceptibility of an individual to a certain organism. Briefly, this consists of putting a small amount of graded dilutions of a broth culture of the organism in capillary tubes with one drop of the individual's blood. The tubes are then sealed and incubated for twenty-four hours. At the end of this time the tube is broken and a smear made. The organisms, if there is any bactericidal power in the blood, will have disappeared entirely, or, if this inhibitory power is absent, the organisms will have multiplied.

This test is a quantitative one if it shows at which dilution the bactericidal element is lost. Clinically, this is of little direct value, as it cannot be employed until the organisms have been grown on ordinary culture media.

Myer Solis Cohen and Heist,² working together, employed another method which they termed the pathogen selective culture. This consists of making a smear on the bottom of a test tube and to overlay this with from five to ten cc. of the patient's whole coagulable blood and after twenty-four hours incubation, to plate a drop of this inoculated blood on the ordinary culture media. Only those organisms will grow against which the blood has no bactericidal action. Using this

method the growth of the saprophytic organisms is eliminated.

A short time later Dr. Cohen went one step further and made a vaccine from the organisms which were found to be pathogenic.

I have used this method of preparing vaccines in twenty cases for the following conditions: Chronic bronchitis, arthritis, neuritis, endocarditis, and bronchial asthma. The best results were obtained in the cases of bronchitis and bronchial asthma.

A few illustrative cases briefly reported are as follows:

Case No. 1. I. B. Lady, forty years old, had had chronic bronchitis for twenty-three years, worse in the winter than in the summer, but present the whole year around. Stock vaccines and one autogenous vaccine had been used to no advantage. In November, 1924, pathogen selective vaccine was made for her. Streptococci and staphylococci were found to be pathogenic. The culture of this case was made from a sputum. After the sixth injection the cough began to subside. A marked improvement in her general condition was noted. Altogether she had eighteen injections. She has had no treatments for over sixteen months and the cough has not returned.

Case No. 2. G. B. Lady, thirty years old, first saw her in January, 1925, complained of pain in the large joints of the upper and lower extremities. There was no joint pathology. One year previous, tonsils were removed and found diseased, but following the tonsilectomy, there was no improvement in the joint pain. No other focus of infection could be located. A smear was made from the pharynx and this covered with eight cc. of whole coagulable blood. Streptococci and pneumococci were found to be pathogenic. After vaccine treatment, the pains gradually disappeared and have not returned.

Case No. 3. S. R. Girl, twelve years old, first saw her in October, 1924, when she had an acute exacerbation of a chronic endocarditis. Temperature had been 101 and 103 for six days; blood pressure could not be recorded; pulse 130 to 160; heart was enlarged in all dimensions. Her history disclosed that the first attack began in 1920, following a severe tonsillitis and that there had been numerous attacks of endocarditis since. A pathogen selective vaccine was made, using a smear from the tonsils. Streptococci predominated with a few staphylococci. Marked improvement was noticed following the third injection. The injections were continued for six months at six-day intervals. The girl gained twenty-one pounds and was able to be about. In June, 1925, her tonsils were removed and another vaccine prepared, using a swab from the cheesy material in the tonsils. Staphylococci predominated with a few streptococci, exactly the reverse as was found with the first culture. The vaccine was

used for ten injections at six-day intervals following the tonsilectomy. She has not had another attack. The heart is apparently well compensated, the pulse ranging from 72 to 84, and the blood pressure 112 over 68.

Case No. 4. O. G. Man, fifty-two, had bronchial asthma of infective origin for fifteen years, was worse in the winter than in the summer. The least exertion at times would throw him into paroxysm of coughing, sometimes lasting from one-half to two hours. Pathogen selective vaccine was made in January, 1925, using a culture from the sputum. After the third injection the symptoms began to subside. Twelve injections in all were given. So far there has been no sign of recurrence.

In the second case, the lady with the multiple joint pains, I remarked that after the removal of the tonsils, her symptoms continued, but disappeared after using a vaccine made from a swab of the tonsillar spaces. This only confirms what Cohen said, namely, that the removal of the tonsils and cleaning of the infected accessory sinus does not always remove at once all the infecting organisms from the patient.

Below is a composite record of the cases that I have treated with this method showing the results.

Disease	No. of Cases	Cured	Improved	No Results Obtained
Chronic bronchitis	7	5	1	1a
Bronchial asthma	6	5	1	
Arthritis	4	2	1	1
Endocarditis	1	1b		
Neuritis	2		1	1

a—Patient became dissatisfied after fourth injection and stopped treatment.

b—Cured, inasmuch as there has been no recurrence and the heart is well compensated.

Technique: In the cases of lung infection the culture is made from the material coughed. I generally give the patient a sterile container with the instructions not to save the first material coughed up, so as to insure the organisms from deeper in the respiratory tract. Then with a sterile loop a smear is made on the bottom of the test tube and this covered with from eight to twelve cc. of the patient's blood, collected from the vein at the elbow. The amount of blood used depends upon the amount of material in the smear. Naturally, too much blood might inhibit the growth of the organisms if they are mildly pathogenic. Likewise, if there is too small an amount of blood used, there might not be enough bactericidal element in the blood to inhibit the growth of the saprophetic organisms. In cases where a swab is made from the throat, I use from five to eight cc. of blood. This tube is then placed in an incubator for twenty-four hours. At the end of that time a smear is made and the organisms identified. A culture is then made on

the ordinary culture media from the original blood culture. From this point on the vaccine is prepared in the usual method.

In conclusion, I want to emphasize three points. First, that in all cases of focal infection, eradication of the focus is of primary importance and when possible should be done before vaccine therapy is started. Secondly, that before rational therapy can be expected a correct bacteriological diagnosis of the pathogenic organisms must be made. Third, that in cases where vaccine therapy is indicated, this method, of one selecting the pathogenic organisms, should be used.

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TWO UNUSUAL CASES

LYNN W. ELSTON, M.D.

LAPORTE

The cases here reported are of interest more because of their comparative rarity than any practical scientific value.

The first is that of an exceptionally large, viable hydrocephalic monstrosity with multiple congenital deformities delivered by Cesarean section—and the other is the unique concurrence of an acute gangrenous appendicitis and a strangulated right inguinal hernia in an adult male.



Mrs. G. S. entered the hospital February 14, 1926, in labor which had been in ineffectual progress for about nine hours.

Her past history was essentially negative, she always having enjoyed good health—and had spontaneously delivered six healthy children—all of whom are living and well and without deformity. Her previous deliveries were easy—the longest being about four hours.

The course of her pregnancy was also uneventful except that she realized that she was much larger abdominally than usual during the carrying period.

Examination revealed an adult white woman thirty-eight years of age, weight 164 pounds, whose essential findings were those relative to the uterus and its contents.

Bimanual palpitation disclosed a large hard mass in the fundus uteri, small parts apparently on the left side and foetal heart tones in the right lower quadrant of the belly. The cervix was hard and dilated about 2 cm. There was no appreciable engagement of the presenting part. Due to the extreme size of the mass in the fundus with already longer trial labor than any of her former deliveries a Cesarean was performed and a male foetal monstrosity was delivered. The hydrocephalic element was predominant with a circumference around the parietal bosses of 29½ inches. A spina bifida occulta in the lower dorsal region was present, as was also a bilateral talipes varus and general poor development of the torso and extremities. The weight was fifteen pounds, twelve ounces. It lived twenty-six days.

The mother made an uneventful recovery and left the hospital on the eighteenth day.

The head, although small in comparison to many hydrocephalics living, in congenitally one of the unusually large ones reported.

The second, Mr. P. H. P., aged fifty-six, entered the hospital September 14, 1926, complaining of severe pain in the lower right iliac quadrant, nausea, vomiting and faintness and pain in the right testicle.

About one year before he acquired a right inguinal hernia, which although never completely reducible, was comfortably supported by a truss. While lifting a steel scraper on road work the forenoon of his admission he sustained a severe strain and fall and became at once very faint. Sharp colicky pain developed in the right iliac quadrant, also severe pain in the right testis and in the right groin where the size of the hernial mass had markedly increased. Nausea, vomiting, prostration and fever rapidly followed.

Upon examination sixteen hours later he presented essentially exquisite tenderness over McBurney's point, right rectus rigidity, slight tympany of the upper belly, quickened pulse 90, fever 99.2, and leucocytosis of 20,900 white with 83 per cent polymorphonuclears. He also presented a non-fluctuant mass, about the size of a lemon, in the right groin, hard and very tender and imparting a sense of nausea upon manipulation. The urine was negative.

Right para-rectus incision laparotomy disclosed an acute gangrenous appendix with considerable quantity of free pus in the belly, which necessitated appendectomy with drainage.

Another incision over the mass in the right inguinal region disclosed a strangulated acquired inguinal hernia with a small loop of ileum and omentum content. A portion of the omentum was removed but the involved bowel regained its tone and was not molested after reduction. The hernia was repaired and did not become infected. The recovery was uneventful.

SPECIAL ARTICLE

INDIANA UNIVERSITY SCHOOL OF MEDICINE

NEWS NOTES AND PERSONALS

THE School of Medicine holds a seminar on one evening of each month, at which interesting or unusual cases occurring in the university hospitals are presented and discussed or research work of the university relating to medical subjects is explained before the entire medical school group of students and faculty. Practicing physicians who are not instructors are always welcome at these meetings. The November seminar was held Friday, the nineteenth, when a case of Addison's disease and an interesting case of heart block were presented by Dr. Lewis N. Ashworth, chief resident physician of the Robert W. Long Hospital. Sick cell anemia was discussed by Dr. E. V. Hahn, instructor in surgery, and Dr. Elizabeth Bierman Gillespie, a graduate of this school. Prof. Jacob A. Badertscher, Ph.D., of the medical faculty at Bloomington, had a paper on "Leucocytes and Lactation."

DR. CHARLES P. EMERSON, dean of the School of Medicine, was re-elected president of the national committee for mental hygiene at its annual meeting held in New York in November. Dr. Frankwood E. Williams, a former resident of Indianapolis, is medical director of the national committee for mental hygiene. The vice-presidents are Bishop William Lawrence, of Massachusetts, elected in place of Dr. Charles W. Elliot, former president of Harvard, and President Norman Angell, of Yale, and Dr. Bernard Sachs, of New York.

FRIENDS in Indianapolis received word that Dr. Frank F. Hutchins, professor of mental and nervous diseases in the School of Medicine, who with his wife is making a world tour, had recovered from an attack of bronchial pneumonia suffered while at Vilanea Military Camp, Hawaiian Islands, early in November, and was resuming his trip, going first to Japan and China. Dr. Hutchins expected to spend some time in study in European medical centers.

DR. THURMAN B. RICE resigned his position as director of the bacteriology laboratory of the Indiana Board of Health September 15 in order to devote full time to his work as assistant professor of hygiene and sanitary science, and in charge of the course in bacteriology in the School of Medicine. Dr. Rice has also given some time to the preparation of articles on public health subjects at the request of the editor of *Hygeia*, and for the *Board of Health Bulletin*, the *Indianapolis News*, and other media. Dr. Rice is not engaged in private practice.

THREE nurses in training at the Huntington County Hospital are now at the James Whitcomb Riley Hospital for Children, taking a four months' course in pediatrics nursing offered to pupils of affiliated training schools by the Training School for Nurses of the Indiana University School of Medicine. The course is four months in length and is open to nurses who have had not less than eighteen months' training. The time spent in the pediatrics course is credited by the affiliated school toward the completion of the standard three-year course required for the degree of graduate nurse. The course covers both theory and practice in the care and feeding of infants and children who are either medical or surgical cases. Experience in operating room work is desired as a prerequisite to the course. The students here now are Mabel Lahm, of Huntington; Bertha Stout, of Bluffton, and Clowey B. Goff, of Roanoke.

CONSTRUCTION of the Suemma Coleman Hospital for Women on the campus of the Indiana University School of Medicine, is proceeding as rapidly as weather conditions will permit. The concrete sub-structure is completed and the brick walls are going up rapidly. A service tunnel connecting the new unit with the central power plant and the Riley and Long hospitals and medical school building has been completed. The hospital will be ready for occupancy about December, 1927, according to present estimates. It will cost, equipped, about \$350,000, and is the gift of Mr. and Mrs. William H. Coleman, in memory of their daughter, Suemma Coleman Atkins.

THE engagement has been announced of Dr. Seth Wiley Ellis, who received his M.D. degree from Indiana University in 1925, and Miss Mildred Hill, of Anderson. Dr. Ellis is attached to the staff of the Henry Ford Hospital, in Detroit. He formerly lived in Anderson.

DR. ROBERT A. MILLIKEN, formerly assistant in surgery in the School of Medicine, is doing two years' work in orthopaedic surgery in the Massachusetts General Hospital, in Boston. He has completed one year, and expects to return to Indianapolis in November, 1927, when he will restrict his practice and teaching to the specialty of orthopaedic surgery.

DR. ROGERS SMITH, associate in mental and nervous diseases, attended the meeting of the Central Psychiatric Association in Cincinnati, Ohio, November 5 and 6.

DR. EDWIN N. KIME, associate professor of medicine and in charge of the Department of Physical Therapy of the Medical School, gave two addresses before the Iowa Radiological Society at Des Moines, November 11 and 12, on Sur-

gical Diathermy in Accessible Malignancy, and Explanation of Physical Therapeutic Agents on the Basis of Salt Antagonisms, and Vegetative Dynamic Equilibrium.

INDIANA UNIVERSITY faculty and officers were well represented on the program of the State Conference on Social Work at Lafayette, November 20-23. Dean Emerson, of the School of Medicine, spoke at the opening meeting on "The Great Public Health Movement." R. E. Neff, registrar and administrator of the University hospitals, discussed "The Place of Hospitals in a Public Health Program," at the public health round table on Monday. Prof. Herman H. Young, Ph.D., of the department of psychology, discussed "Speech Training for Children" before the group meeting of hospital social workers, at which Miss Grace Ferguson, supervisor of the social service department of the School of Medicine, as chairman of the Indiana District of Hospital Social Workers, presided.

DR. AND MRS. ROBERT M. MOORE announce the birth of a son, Philip Van Dyke, November 6. Dr. and Mrs. Moore now have two sons. Dr. Moore is associate in medicine in the Indiana University School of Medicine.

DR. AND MRS. PAUL VANARSDEN are celebrating the arrival of their first-born, a seven and three-quarter pound boy, Paul, Junior, born November 8 at the Robert W. Long Hospital. Dr. VanArsdel is an interne in the university hospitals and was graduated from the School of Medicine in June, 1926.

DR. WALTER P. MOENNING, assistant in medicine, and Mrs. Moenning, announce the birth of a daughter, Margaret Wilma, October 11.

DR. AND MRS. EUCLID T. GADDY, 2602 West Washington street, announce the birth of a daughter, Ruth Eleanor, October 15. Dr. Gaddy received his M.D. degree from the Indiana University School of Medicine in 1921, and the *cum laude* degree in 1922.

DR. ROBERT M. MOORE, associate in medicine, gave a practical demonstration of a "Periodic Health Examination" before the Grant County Medical Society, November 23, and a talk before the Randolph County Medical Society on "Common Errors in the Diagnosis and Treatment of Heart Disease," November 8.

PLANS are being made for a post-graduate course in physical therapy to be given by the Indiana University School of Medicine, and using the equipment and clinical material of the James Whitcomb Riley Hospital for Children and the Robert W. Long Hospital. The course would take five or six weeks and be open only to

graduate physicians in good standing who wish to familiarize themselves with the newer therapeutic agents. Dr. Edwin N. Kime, associate in medicine, who has been teaching the course in physical therapy for seniors in the School of Medicine, and who is taking an active interest in extending the instructional opportunities to those who have graduated, says, in regard to the proposed course:

"Although our under-graduate curriculum is already so crowded that we will probably not be able to add any more under-graduate work, it is our desire to give a six weeks' post-graduate course this summer if enough medical men show sufficient interest in the work to request it. What I would like to find out is how many medical men over the state would consider spending that much time or a little less in obtaining a real university course, which will include not only didactic instruction, but ward rounds, and technic as administered at the University hospitals. I am sure that we can find enough material to keep a group of doctors busy for six weeks, the time recommended by the Council on Physical Therapy of the American Medical Association."

APPROPRIATIONS asked for in the proposed budget of Indiana University for the School of Medicine and its hospitals, the James Whitcomb Riley and Robert W. Long, are necessary in order to meet the needs of the state, according to members of the financial committee of the medical council of the University. Additional supplies and laboratory space are required to meet the demand for medical training to supply the needs of the state, and for carrying on research work, of which Indiana has not done its share. Additional salaries are also budgeted to cover increase in the teaching staff and teacher-investigators. The state's medical library housed in the Indiana University medical building, has only 7,500 volumes, many of which are gifts, and the library appropriation asked would assist in bringing this important unit of the teaching and research facilities of the state more nearly on a par with other states. Appropriations for improvement of streets and grounds are needed to provide better communication between the units of the medical center and to pay the University's share of the street improvements being required by the city of Indianapolis about the campus of the medical center. At the present time, the streets about the buildings, except on the Michigan street side, are muddy lanes and almost impassable at times. For the School of Dentistry, the University also asks an appropriation to provide for a new and more suitable building located near the medical school building, and for a slight increase in the salary item to cover the expense caused by the changed requirements in dental education since the course was organized to meet the standards of the University and state and national dental organizations. The budget follows.

For the Indiana University Medical School and Hospitals, located at Indianapolis, the following appropriations in addition to those now operative are asked for:

	1927-28	1928-29
Repairs and improvements including walks and drives.....	\$ 25,000	\$ 25,000
Library books	40,000	40,000
Equipment—all departments and divisions	50,000*	50,000
Supplies—all departments and divisions	15,000†	20,000
Improvements of grounds and streets adjacent	20,000	-----
Buildings	-----‡	-----
Salaries and wages including additions to staff.....	43,500	43,500
Total	\$193,500	\$178,500

For Indiana University School of Dentistry, located at Indianapolis, these appropriations are asked:

	1927-28	1928-29
Equipment	\$ 20,000	\$ 80,000
Building	-----	250,000
Salaries and wages including additions to staff.....	6,500	6,500
Total	\$ 26,500**	\$336,500

Health promotion work for children of school age is being continued this year by the field nursing service of Indiana University, represented by Miss Edna Graybil, R.N., and Miss Jessie Newlin, R.N., from the Robert W. Long Hospital, working under direction of the director of the Training School for Nurses of the School of Medicine, and the Extension Division at the invitation of various local organizations. The aim of the work is to promote interest in good health for school children, and the aid of various community agencies and civic clubs is enlisted. Children found to be in need of medical care in the counties visited are referred to their family physicians where possible, or to the care of organizations which may help them secure care. The proper function of the James Whitcomb Riley Hospital for Children is also explained when requested to parents and officials, and instruction given to those responsible for decisions as to the legal requirements for admission to the hospital and to discriminate between those who may properly be given Riley care and those who should receive and pay for their own care in the home communities. Inspection of school children for health conditions is done in most cases only as a demonstration of what may be done by regularly employed nurses, and the effort is made to teach each community to rely on its own medical resources. Among the

*Includes equipment for new wing of Medical School Building.

†The matter of Coleman Hospital maintenance appropriation is not included in this outline.

‡The \$100,000 to be given in exchange for the old Medical School building is considered outside of this request.

**The income of the Dental School at present is entirely from fees established by statute.

many activities reported by the nurses in their visits so far in Floyd, Clark, Morgan, Putnam, Sullivan, and other counties, are school inspections, usually with the aid of mothers in the parent-teacher associations, home visits, health talks to children, and distribution of health posters, conferences with newspaper editors, civic and luncheon club officers, talks before luncheon clubs, conferences with hospital officials, physicians and public health or school nurses, teachers

and school officials. Aid and advice in the promotion of health programs is given community organizations. Whenever possible children in the communities visited have been referred to their local physicians for treatment. In several instances the Indiana University nurses have found children being treated by chiropractors, and have endeavored to persuade the parents of the danger of lack of proper medical care.

C. R. MACDONNELL.

HOW MUCH IS YOUR FEE, DOCTOR?

BY A CALIFORNIA SPECIALIST

"How much is this operation going to cost me, doctor?"

"Well, I am going to charge you, for giving you the skill I have worked twenty years to acquire, and for the knowledge which I have studied years and spent thousands of dollars to gain, as well as for some half dozen hours of my time, used in examining, operating and dressing—for this I am going to charge you the same amount the automobile dealer charged you for taking you to ride in his demonstrator, and talking you into buying one of his cars. He actually spent less time on you than I spent and certainly spent less than I on his education and training. As to taking responsibility, he took none—he had nothing to lose except his time and a small portion of his overhead expenses. I had your life in my hands; and there were moments, during the operation, when that responsibility weighed heavily. Do you consider that he rendered you a greater service than I? It certainly cost him less of his vital force to render it. You feel that I am taking great advantage of you when I charge you \$200 for putting your body in the best repair of which it is capable; but you are pleased and happy to pay him \$200 for persuading you to buy his brand of car. I realize that it seems to you that in one case you are paying for personal service, which gives you no pleasure, and in the other case for merchandise for goods you can actually see and feel and which do give you pleasure. But you should also look at it from the viewpoint of the motor car dealer and myself.

"Similarly, for the care I give your wife throughout pregnancy—for the numerous examinations and for the encouragement and heartening I try to give her—for the disturbance of my rest in the dead of night, for the hours of waiting, with eyes heavy for want of sleep—for taking the responsibility of doing the very best for mother and babe and for watching and guiding them

through the first ten days of the babe's life; for all this, I am going to charge you the same amount as the piano dealer who talked with you for an hour on two or three occasions, very courteously explained to you the superior points of this piano and finally drew up the contract and made you the sale. You never thought he was asking too much of you, because you never really considered him as asking you anything for his service. You were paying \$400 for a piano and it did not seem to you unreasonable. If the salesman had charged you even \$10 for his personal services in showing you the pianos, you would have been indignant. But with the impersonal thing, the piano, and its value as merchandise and not as service, you feel no resentment nor injustice.

"You simply do not stop to analyze. You do not realize that you are paying anything for personal service when you buy merchandise. Besides that, when you pay for medical service, you are usually 'paying for a dead horse.' You have already had the relief from pain, or from anxiety over sickness. With your car, you are paying for pleasure which you are going to enjoy or which you are still enjoying. If you were obliged to pay your doctor bill before you got relief from discomfort, you would pay more eagerly and willingly.

"For all the calls I made at your house when you had the flu; for giving my most careful thought as to the best way of managing your illness; for exposing myself to possible contagion, for six hours of actual time I spent calling on you and going to and from your home, and for the various supplies I expended in treating you, I am going to charge you the amount which you put into the radio dealer's 'profit account' to compensate him for having placed his receiving set in your living room. Remember, I'm not talking about the cost of the set, but what you paid him to induce you to choose it.

"Am I fair? Or am I an extortioner? For my services to the community year in and year out I am not demanding any more than the head of your bank, nor than your successful realtors or your merchants—often less. I usually work more hours than they do; and I never consider my own comfort.

"Do you really think that I am a 'Grafter?'"
—*Medical Economics, Illinois Medical Journal.*

THE JOURNAL of the

Indiana State Medical Association

Devoted to the Interests of the Medical Profession of Indiana

ALBERT E. BULSON, JR., B.S., M.D., F.A.C.S.
Editor and Manager

Office of Publication, 406 W. Berry St., Fort Wayne, Ind.

DECEMBER, 1926

EDITORIALS

ULTRAVIOLET RAY THERAPY

Ultraviolet ray therapy is assuming an important role in the treatment of certain disease conditions. It is claimed, and perhaps with much truth in the assertion, that general ultraviolet radiation of the skin increases the bactericidal power of the blood and therefore enlarges the defensive mechanism of the body. It is this action which is said to cure tuberculosis and rickets, to aid in the cure of wounds, and improve the general health of weakly children. It is this knowledge of the bactericidal power of the ultraviolet radiation that has led to the employment of such form of therapy in a variety of local infectious processes. However, in the use of ultraviolet ray therapy the beginner must be warned against over-enthusiasm, and especially the unwarranted and unjust claims put forth by manufacturers who, with commercial ends to serve, glibly magnify the possibilities of good results from the use of ultraviolet ray therapy and in doing so they emphasize the pecuniary gains to the physician who adopts the new form of treatment for his patients.

Several months' experience in the use of ultraviolet ray therapy leads us to believe that there is considerable virtue in it, but we also have learned that it has its limitations and that it will not produce the miraculous results claimed for it by the exploiters who are making the most astounding claims as to its beneficial effects in a very wide variety of affections. Naturally the best results will depend upon the kind of apparatus used and the manner in which it is used, though the most satisfactory effects will be secured in a limited number of cases. However, when all is said and done, we wish to express our appreciation of a new mode of treatment that offers promise of successful results in the treatment of a variety of disease conditions, including some of the many and varied skin manifestations.

Fortunately, a Council on Physical Therapy has been provided by the American Medical Association, and it is to that council that we shall look for valuable information as to the reliability of the various machines placed on the market by manufacturers, and the trustworthiness of the claims that are put forth by users. We also hope that physical therapy as one of the alleviating and curative agents at our disposal will be taught conservatively in our medical institutions. The specific

indications for and the accurate technic of applying these various modalities must be as thoroughly mastered as the use of specific drugs. As a writer in *Colorado Medicine*, October 1926, says, "the physical and chemical changes that are brought about by the use of diathermy, infra red and ultraviolet rays, x-rays, etc., are as worthy of the critical attention of the physiologist and therapist as are any other such changes that take place in the body. Likewise, they are probably as difficult to understand. Their effective use can no more be learned from the instruction contained in the literature buried in the excelsior packing of physical therapy machines than can digitalis by the instructions on the bottle."

There should be authoritative instruction in this field, and it should be given a definite place in the curriculum of our schools.

DOCTORS IN POLITICS

As an evidence of what medical men can do in preventing the election of unworthy men to political office, five doctors, two of whom are Democrats, compared notes concerning their efforts to defeat one Eickhoff who was a candidate for Congress from the Twelfth Congressional District at the last election. Each and every one of the medical men was opposed to Eickhoff because he voted against nearly all worthwhile legislation pertaining to medical education and licensure during the last session of the Indiana legislature. Believing that a leopard will not change his spots, and that Eickhoff would vote against needed medical and public health legislation in Congress, the medical profession was asked to work against him in the last election, and the five men mentioned considered that they could average ten votes each among their friends who had been switched from Eickhoff on the ground that he was opposed to progressive medicine and all that it stands for. It is a well known fact that medical men, the majority of whom are of a high order of intelligence and have many influential friends, can have great influence in matters of public concern. The thought leads us to the suggestion that whenever the medical profession seriously decides to take a hand in politics it will form a very formidable power which will accomplish great good for the profession and public alike.

THE USEFULNESS OF PROPAGANDA

The Indiana Parent-Teachers' Association has gone on record as favoring the re-enactment of the Sheppard-Towner law. This action has been brought about as a direct result of the propaganda that has been poured into Indiana by those who are interested, for one reason or another, in the Sheppard-Towner Act and its operation. Some of the sponsors for the bill are sincere in their approval of it, though misguided as to the ultimate effects to be obtained. Others support the bill because it means a job for them, or some kind of

preferment that is desired. Some of the propaganda that has been distributed in Indiana has contained untruthful or exaggerated statements concerning results secured, and not a very clear or consistent idea of objects to be obtained that are comparable to the work accomplished by the individual states. The American Medical Association, through its eighty or ninety thousand members, has gone on record as opposed to the re-enactment of the bill. This is not because medical men are opposed to child welfare to the slightest extent, but because they believe that the object to be attained can be secured without the aid of federal subsidies that are bound to react unfavorably in the future. It is a bad precedent and no telling where this question of subsidies is going to end. Furthermore, child welfare is something that belongs to the states and not the nation. But what has been accomplished in Indiana through propaganda only indicates what is necessary to do in order to attain any object.

HOME FOR INDIGENT PHYSICIANS

A movement is on foot to establish a national home for indigent physicians, and we have had some complimentary things to say concerning this enterprise because we were led to believe that a reason existed for the establishment of such an enterprise. However, recently we have learned that the whole project is in a measure a commercial one and that the most interested promoters are to profit financially from the enterprise. Furthermore, we also have learned that a careful canvass of the United States shows that the number of indigent physicians are so few that a National Home for them is unnecessary, and the effort to secure and maintain such a home is wasted energy. For instance, here in Indiana a careful canvass of the state shows that we haven't a single indigent physician or, in other words, a physician who needs such a home as contemplated by the promoters of the enterprise that has received so much publicity. At the conference of State Medical Editors and Secretaries held in Chicago in November this matter was discussed, and it was learned that the record of Indiana is practically duplicated by a majority of the States of the Union. In fact, there are several state medical associations that maintain a fund for indigent physicians, and in not a few of these states the fund has been dormant for many years as there has been no occasion to draw upon it. Therefore, those who are shedding salty tears in consequence of the heart-rending descriptions that have been sent out by the promoters of the Home for Indigent Physicians should dry their eyes and at the same time close up their pocketbooks.

INDIANA VITAL STATISTICS FOR 1925

(A Review of the Annual Report of the Vital Statistics Division of the State Board of Health for the Year 1925)

During the year 1925 the total number of deaths reported from all causes was 38,596, an increase of 1,561 over the preceding year, giving a death rate for the state of 12.7 per 1,000 population as compared with a rate of 12.3 for 1924. The number of births reported for the year was 64,300, a decrease of 3,080 from the preceding year, giving a birth rate for the state of 21.5 per 1,000 population as compared with a rate of 22.4 for 1924. The principal causes of death in numerical order are as follows:

First—Organic Heart Disease.....	4,949
Second—Apoplexy	3,266
Third—Deaths from Violence	3,155
Fourth—Pneumonia	3,064
Fifth—Cancer	3,048
Sixth—Tuberculosis (all forms)	2,499

The 1925 report shows the lowest death rate in the history of Vital Statistics in Indiana from tuberculosis and diphtheria. The report shows also, the highest death rate since the beginning of Vital Statistics from cancer and accidental deaths. The death rate from diphtheria is 5.6 as compared with 7.9 in 1924. The average diphtheria rate for the preceding ten years was 14.2. As immunization against diphtheria becomes more general both the prevalence and the death rate from this disease will be lowered even to the vanishing point with universal protection by immunization.

It will be noted that tuberculosis has dropped from its former commanding place as a principal cause of death to the sixth place in order. The death rate from tuberculosis shows a consistent decrease each year. In 1925 the death rate from this disease in the white population was 75.2 while in the negro population the death rate was 257.4. The highest death rate in any county from tuberculosis was in Lawrence County with a rate of 162.9. The lowest death rate in any county being in Benton County with a rate of 16.4. In cities of the State having a population of 5,000 or more the lowest general death rate was in Whiting with a rate of 6.8. The highest death rate being in Jeffersonville with a rate of 17.8. The highest tuberculosis death rate in cities was in Bloomington with a rate of 160.3. The lowest tuberculosis death rate in cities being in Huntington with a rate of 32.1.

The largest increase in the death rate from any cause was from accidental deaths with the automobile as the principal factor in the increase. Total number of deaths from automobile accidents in the State in 1925 was 644, an increase of 110 over the preceding year, or a percentage increase of 20.6. In 1919 the number of deaths from automobile accidents was 241. There has been an increase of 167 per cent in deaths due to automobile accidents since 1919. In contrast to this, the report shows

a decrease of fifty deaths from railroad accidents including interurbans, since 1919, or a decrease of 17 per cent. Deaths due to street car accidents show a decrease of 70 per cent since 1919. Deaths from violence are classified as follows in the report:

Automobile Accidents	644
Railroad Accidents including Inter-urban	234
Street Car Accidents	12
Homicide	197
Suicide	443
Fires and Burns	177
Food Poisoning	16

The infant mortality rate per 1,000 births was 67 as compared with 65.6 in 1924 and with 81.4 in 1920. Maternity deaths from puerperal causes shows a rate of 12.3 as compared with the rate of 11.8 for 1924 and 14.6 for 1921.

More than one-half the deaths in the age period above fifty years were from so-called "heart failure," apoplexy and cancer. In connection with the large number of deaths from degenerative diseases in the active middle period of life, it is interesting to note the experience of a large life insurance company having millions of industrial policy holders. About seventeen years ago this company instituted a program of health education, nursing service and physical health examination for its industrial policy holders. This company has expended more than \$20,000 in this campaign, and has constantly increased its annual budget for this work in response to a constantly increasing demand for the service and because of increasingly favorable results of the work. In this seventeen year period the mortality rate in this group of policy holders has declined more than thirty per cent with an estimated saving of \$43,000,000. During this period the death rate from tuberculosis has been reduced over six per cent, from typhoid fever eighty per cent, from the communicable diseases of childhood fifty-five per cent, and from diphtheria sixty-two per cent. The clinching argument for health service, however, is shown in the fact that the death rate among the industrial policy holders having the advantage of this service has declined twice as fast as the decline of the general population. To state the same fact in another way, the expectation of life in this group of workers and their families has increased by nine years while the corresponding increase in the general population has been but five years. Health work properly organized, adequately financed and carried out intelligently pays by every test of modern business.

POST-GRADUATE COURSES IN PHYSICAL THERAPY

It is said that the medical department of Indiana University is going to sponsor a course of post-graduate lectures on physical therapy. We are in entire sympathy with this move, though we

would like to give a word of caution. The value of physical therapy has been grossly over-estimated by the quacks, medical pretenders, and even over-enthusiastic and credulous members of the regular medical profession. In a measure this has been brought about through the action of the manufacturers who have not hesitated to recommend physical therapy as good for everything under the sun, and a sort of cure when everything else fails. Not a few doctors have exploited themselves in connection with physical therapy practice, and the whole matter has been so commercialized as to nauseate the better thinking men in the medical profession. It is this fact that has prevented the general adoption of various types of physical therapy as a very useful measure in the treatment of diseases by medical men as a class.

While physical therapy has its limitations, yet it does have virtues that should be recognized, and that is why we are making a plea for the placing of physical therapy upon a rational and ethical basis. If the medical department of Indiana University will sponsor the teaching of physical therapy along rational lines, and will divorce it from the exploitation of any individual or any manufacturer, and above everything else will frown upon any efforts to commercialize the practice of physical therapy, we are strongly in favor of such a course as proposed. In fact, we are convinced that it is the only thing that will straighten out this whole subject so that it will be placed upon a sound scientific basis. The American Medical Association already has formed the Council on Physical Therapy whose work is going to be of unquestioned value in straightening out some of the problems confronting us in the way of the adoption of physical therapy as a part of our equipment for the relief of human ills.

CHIROPRACTOR AS HEALTH OFFICER

The town of Uniondale in northern Indiana has a chiropractor for a health officer. He was appointed by the Board of Town Trustees. He is not a doctor and knows little or nothing about medicine, and certainly nothing concerning the diagnosis of disease. Recently Uniondale has had a few cases of smallpox, and it is reported that the diagnosis was made by physicians from surrounding towns. It is said that the chiropractic health officer is advising people to take chiropractic adjustments to protect them from smallpox, and is condemning vaccination.

The State Board of Health should not be criticised for this condition of affairs, for the Board has not the power to approve or disapprove of the appointment of a health officer, as that function resides in the Board of Town Trustees which constitutes the Board of Health for an incorporated town and has the right to appoint a town health officer who shall serve for a term of four years. The law does not specify that a medical man shall be appointed as health officer and, accordingly, it is en-

tirely possible for a board of town trustees to appoint any layman, no matter how ignorant or how antagonistic he may be to general health regulations. Certainly Uniondale is paying the penalty, and it is high time that some effort be made to so amend the law that other towns will not be permitted to jeopardize not only their own interests but the interests of the surrounding communities by appointing as a health officer anyone but a duly credited medical man. Perhaps after Uniondale's experience our Board of Medical Registration and Examination might get somewhere by bringing the chiropractor of that vicinity into court to answer the charge of practicing medicine without a license. Our medical law is next to worthless when it does not reach such culprits as the health officer of Uniondale.

THE PERPETUATION OF THE SHEPPARD-TOWNER IDEA

An immediate onslaught of Sheppard-Towner propagandists, to jam through Congress the pending bill to extend the life of the Sheppard-Towner Act, may be expected when Congress convenes, December 6. As passed by the House of Representatives, this bill proposes to extend the act for two years. The Senate Committee on Education and Labor has recommended, however, that the extension be reduced to one year, and with that recommendation the bill is now on the Senate calendar. Its proponents will probably urge amendment on the floor of the Senate to provide for a two year extension, and its immediate enactment as thus amended. Unless the bill is promptly enacted, the thirty-nine legislatures that convene in January can hardly enact the reciprocal state legislation necessary to consummate the purchase by the federal government of the constitutional right of the states to control hygiene and sanitation within their own borders.

When the Sheppard-Towner Act was passed in 1921, its leading proponents represented that it was for the protection of mothers and infants inadequately protected by the states; that the protection was to be afforded through social and economic reforms, and that the act was to be operative for five years only. Today, however, money appropriated under the act for mothers and infants is being diverted to the use of older children; the act has blossomed forth as a full-fledged health measure, and its proponents claim that the act is permanent legislation. If these things suggest lack of understanding or of good faith on the part of those who procured the passage of the act in the first instance and who have administered it since, so does the bill now pending. It implies that two years will mark the end of the Sheppard-Towner adventure; under cross-examination in the committee hearing, however, proponents of the bill admitted that the extension now sought is the first of a series of proposed extensions—but how many or for how long a time

they absolutely refused to say. Statistics are being used to support the passage of the present bill that relate exclusively to infant mortality, whereas the money appropriated under the act is being used for the benefit of older children as well. The hearing on the bill before the Committee on Interstate and Foreign Commerce of the House of Representatives was held without notice to opponents of such legislation—in fact, almost before knowledge of the introduction of the bill had left Washington, and certainly before copies of the bill were available outside the national capital.

A bill with such a background and history condemns itself. A worthy bill does not have to be forced through Congress by specious arguments as to its *modus operandi*, nor does it need to be perverted from its professed purpose after its enactment. A meritorious bill can safely run the gauntlet of open committee hearings with equal opportunity for the two sides. No basis of accomplishment has been laid for the proposed extension of the Sheppard-Towner Act; apparently it has accomplished nothing within its allotted life to justify Congress in continuing its adventure into the field of state management. Yet its proponents are unwilling to abandon the experiment! Perhaps the same political astuteness that procured the passage of the original act will procure its extension, unless the medical profession joins more actively than heretofore in the movement to prevent its enactment. The fallacies of the Sheppard-Towner doctrine have already been pointed out in *THE JOURNAL*, in the *American Medical Association Bulletin* and elsewhere. Reprints of articles exposing such fallacies will be furnished by the Association on request to physicians and others desiring to join in the movement to check the continuance of "Sheppard-Townerism."—*Jour. A. M. A.*, Nov. 27, 1926.

CONTRIBUTORY CAUSES OF DIPHTHERIA DEATHS

In this day and age, with our precise knowledge of the causation of diphtheria and the absolutely specific treatment that is obtainable for its cure, it ought to be superfluous to talk in general terms to even the ordinarily intelligent physician concerning the diagnosis and treatment of diphtheria. However, an investigation of several deaths from diphtheria, made by the Indiana State Board of Health, prompts the Board to say emphatically and unreservedly that there are members of the regular medical profession of Indiana who deserve severe censure for failure to recognize and treat properly cases of diphtheria, and that such incompetency has led to unnecessary deaths. A death from diphtheria, when the disease has existed for several days and under the immediate care of a physician but has not been treated according to approved and recognized scientific methods, is one that ought to bring about justifiable censure of the attending physician.

The health bulletins of the government, the state, and municipalities all over the country for years have been full of articles calling the attention of medical men to the necessity of treating every suspicious case of sore throat with antitoxin when there is the slightest suspicion that the trouble may be diphtheritic in character. Teachers in our medical schools and writers for the medical press have repeated this message until it is almost threadbare, and the health board of New York City a few years ago made the emphatic statement that a death from uncomplicated diphtheria could be attributed to the following: First, failure on the part of the family to call a physician sufficiently early, even though the disease is recognized as diphtheria when the physician first sees it; second, failure on the part of the attending physician to recognize the disease, no matter how early he is called; third, failure to administer antitoxin as soon as the disease is recognized, or even if he suspicions that the disease is diphtheria; fourth, failure on the part of the attending physician to administer antitoxin in large enough doses and early enough. Thus it will be seen that the health board of New York City practically places diphtheria deaths at the door of the attending physician. In Indiana the state board of health has iterated and reiterated all of the known facts concerning the diagnosis and treatment of diphtheria. Particular emphasis has been made upon the prompt use of antitoxin in sufficient dosage in every suspicious case of sore throat. In the bulletin of the Indiana State Board of Health for October there is a special article headed "Give Antitoxin Early." In connection with that article is published a table of doses, in the belief that such table will prove helpful to many physicians. We have emphasized every phase of this subject again and again in the columns of *THE JOURNAL*, and many of the editorial notes have given particular attention to the necessity of treating suspicious cases of sore throat with antitoxin, notably those cases that are on the borderline, and in particular, those cases of so-called spasmodic croup. A laboratory diagnosis is very desirable, but no physician should wait for a laboratory diagnosis in a suspicious case but administer antitoxin at once. It is nothing short of criminal carelessness when this specific treatment is omitted from those cases in which there is an easily demonstrable membrane in the throat, or in which there is the slightest suspicion that the trouble may be diphtheritic in character. This calls for especial emphasis in a consideration of those cases of croup that may be diphtheritic, and very often are, with neglect of adoption of appropriate specific treatment.

We recently have learned that the Indiana State Board of Health has investigated a number of deaths from diphtheria in various sections of the state and arrived at the conclusion that the deaths could have been prevented by the prompt use of antitoxin in sufficient dosage to neutralize the toxin of the infection. In practically every one

of the incidents under investigation the attending physician was a member of the regular medical profession and with a fairly good professional reputation in his community. There is no use in whitewashing the facts, for these deaths and the attending antemortem history of the cases indicate very clearly that members of our profession are guilty of what we regret and feel ashamed to admit is carelessness in not employing laboratory findings to aid in making the diagnosis, and antitoxin as treatment. We are quite well aware of the fact that some of our easy-going confreres will say, "Put on the soft pedal! Why stir up discussion of the frailties of the medical profession?" To such we say that there is no good and sufficient reason why we should gloss over the inexcusable mistakes of our confreres when such mistakes are responsible for fatal results. We never will get anywhere until we get over this habit of covering up the mistakes of the ignorant and incompetent physician with a mantle of charity, and so make it easier to increase the population of our graveyards. We do believe in being charitable with those who differ in opinion, even after using all the modern methods of diagnosis, but when it comes down to the recognition of the time and place for the administration of antitoxin there is no parting of the ways any more than there is in the recognition of a fractured bone which roentgenography will disclose to a certainty. The incompetents who have been responsible for diphtheria deaths in Indiana cannot undo the damage they have done, for the cemeteries cover their mistakes, but they can profit by experience even if they do not by teaching. We earnestly urge every doctor in Indiana to procure a copy of the October number of the Bulletin of the Indiana State Board of Health and read that portion of it which concerns diphtheria and its treatment.

We sincerely regret that it seems necessary to offer this criticism and rebuke, but we as well as the Indiana State Board of Health believe that needless deaths are sufficient cause for a frank discussion of the matter.

EDITORIAL NOTES

DEAR DOCTOR:

THE JOURNAL and the Cooperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about pharmaceuticals, surgical instruments and other manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital. We invite and urge you to use this Service.

It is absolutely free to you. The Cooperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in *THE JOURNAL*, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This Service Bureau will give you the information.

Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to ask *THE JOURNAL* about them, or write direct to the Cooperative Medical Advertising Bureau, 535 N. Dearborn St., Chicago, Illinois.

We want *THE JOURNAL* to serve you.

BIND YOUR JOURNALS. This number of *THE JOURNAL* contains the index for the year.

WE thank so many of our exchanges for quoting so liberally from our pages, but we hope they will give us credit, and we note that sometimes they do not.

THE Season's Greetings to all our readers, and may Santa Claus fill your stockings and make you real happy on what should be the brightest and best day of the year.

DOCTORS should be as liberal as other people in the purchase of Christmas seals. Remember that every dollar spent in buying seals goes toward the fight against tuberculosis.

WHY not give a year's subscription to *Hygeia* to several of your best friends as Christmas presents? Two or more subscriptions may be obtained for two dollars each. Send your subscriptions to the Americal Medical Association office.

PLEASE observe that we start out the first of the year with a new president and a president-elect. We also have some new committees, and a new order of things as provided by the new constitution and by-laws adopted at the West Baden session.

TOM HENDRICKS says, "Wouldn't it be wonderful if we could start out on January first with the dues of every member of the Indiana State Medical Association paid?" It is entirely possible to have such a condition of affairs, but under any and all conditions we hope that there will be no delinquents next year.

SOME of the physicians in the southern part of the state are asking for a repeal of the law on our statute books which outlaws a book account after six years. It is argued that the law only protects dead-beats and crooks and makes new ones. Repealing the law will hurt no honest man who makes an effort to pay his bills.

THE chiropractic health officer of Uniondale, Indiana, has written the State Board of Health as to his right to vaccinate. Probably his next question will concern his right to administer antitoxin for diphtheria. Isn't this a fine mixup, and isn't it a fine reflection upon our Indiana laws or the interpretation of them. We need some provisions in our medical law so that it can be enforced, as we also need some change in our health laws so that a chiropractor or other ignoramus will not be appointed as a health officer.

In some states the members of the Women's Medical Auxiliary are working in the interests of *Hygeia* by soliciting subscriptions to that wonderful health periodical for lay people. These women even ask doctors to subscribe for *Hygeia*, and it is quite amusing to see how some of the

doctors squirm and even lie when they are asked by members of the women's auxiliary if they take *Hygeia*. As a matter of fact every reputable medical man in the United States ought to subscribe for *Hygeia* and keep a copy of that publication on the waiting room tables of their offices.

ANTEMORTEM and postmortem records of interesting cases occurring in the Massachusetts General Hospital are being published in the *Boston Medical and Surgical Journal*. These case records prove interesting and exceedingly instructive. We wish we could have something similar for publication in *The Journal*, and we throw out this hint to the Long, Riley, and other hospitals of the State that are conducting careful and trustworthy necropsies. In questionable cases it is interesting to know how near the postmortem findings coincide with the antemortem diagnosis.

GOSH, but doctors are queer birds. We have just learned that three of them, well known and having comfortable practices, have not paid their County Medical Society dues for 1926, and have given as a reason that the dues are too much and that not enough benefit is secured for the outlay. Each of these doctors was willing to pay fifty dollars for a single ticket to the Army and Navy football game, to say nothing of all the incidental expenses incurred in going to Chicago and paying hotel bills, etc. Personally, we think any medical society is better off if it refuses membership to three such selfish and narrow-minded doctors.

WE would like to suggest to program committees the advisability of having illustrated papers or talks, and whenever possible, clinics with the presentation of actual cases. Such programs invariably bring out attendance as well as discussion, and we know that they are far more interesting than the reading of dry papers, many of which are overloaded with useless statistics and controversial opinions. We also would like to suggest the advisability of having in part a draft program, for sometimes the best men have to be urged to take part in the program. Some volunteer contributions are excellent, but many of them are positively worthless.

DR. C. H. GOOD, of Huntington, has been made chairman of the committee to further the efforts of the State Board of Health to educate the people concerning the advantages of toxin antitoxin as a preventive of diphtheria, and we look for some tangible results when such an active and prominent member of our Association is at the head of the committee. School physicians, school inspectors, nurses and members of parent-teachers' clubs should be impressed with the idea that diphtheria can be banished from our state by the use of toxin antitoxin as a preventive. The newspapers should

be enlisted in this fight to eradicate a dangerous disease that kills and cripples so many children.

As medical men we have failed to offset any of the damaging propaganda concerning child welfare and some health problems that has been circulated throughout Indiana, and there is no more fertile field for converts than among the women's clubs and especially the parent-teachers' clubs. We doubt if a single representative of the American Medical Association or our own State Medical Association appeared before any of the parent-teachers' associations of the state in order to combat the propaganda that has been so widely circulated by the sponsors for the Sheppard-Towner Act. Eventually we are going to learn the lesson, but by the time we learn it the damage will have been done.

THE election is over and we are glad that some men were defeated, and sorry that others succeeded in gaining office. The returns seem to indicate that there was much splitting of votes, and we often have wondered how many medical men split their votes in order to secure the election to office of men who are favorable to medical education, fair medical licensure, and needed public health measures in which the medical profession is interested. We know of some doctors who are so hidebound that they vote the party ticket no matter who is on the ticket. This accounts for the election of some very bad representatives and senators, for we know that in certain instances if the medical men had done their duty they could have defeated some of the candidates that deserved to be defeated.

THE officers of some county medical societies seem to think that the proper way to wind up the year's work is by a banquet with a number of speakers listed to fill in a top-heavy program. We are under the impression that most everyone is tired of banquets, for the average banquet is a bore. If a banquet is scheduled, the presiding officer ought to insist upon a program of very few speeches and every speaker should be given to understand that he will be limited as to time and will be called down when he oversteps the time that has been allotted. Generally, the most tiresome speaker is the one who never knows when to stop, and it is at such times that the gavel is the proper instrument with which to call a halt. Sometimes we think that the gavel should be used upon the speaker's head.

THE time has passed when medical men should consider themselves as purely professional men and uninterested in anything outside of medical practice. To tell the truth, if medical men had taken a little interest in politics and in civic affairs we would not today be fighting all sorts of isms, pathies, and quackery. Medical men should

take an interest in public affairs, and especially in all legislation pertaining to public health, medical education, medical licensure, nursing, industrial medicine, child welfare, and all of the various enterprises that either remotely or directly have any bearing upon individual or community health. Whenever the doctor takes an interest in various public affairs his voice will have some weight when it comes to the consideration of matters that are strictly medical, and the problems of which are solved in this day and age to such a large extent by the medical quacks and pretenders who work politics all the time.

WE would like to suggest to the secretaries of medical societies that occasionally they vary their programs by having something other than scientific subjects discussed. There is much to be said about the economic side of the practice of medicine, and even some of the social problems connected with the practice of medicine would make good topics for discussion. Programs should be constructive, and it has been said that some of the most interesting programs are the ones that have life in them, hence those talks that are illustrated with stereopticon, or moving pictures, or the living patients are more interesting and hold attention better than lifeless papers. Clinics, or even the presentation of a single patient, ought to bring out an attendance and discussion that otherwise might make a program fall flat.

WE never have admired the attitude of Rev. E. S. Shoemaker, the head of the Anti-Saloon League, in his efforts to accomplish something for the prohibition cause by misrepresentation and unfair tactics of various kinds. His unfair efforts to defeat one of the Justices of the Supreme Court for re-election did not meet the approval of right-thinking people, and it is a source of considerable gratification to find that the object of the Rev. Shoemaker's wrath was returned to office by a very large majority. It was a merited rebuke, but we doubt if it falls on fertile soil insofar as the Rev. Shoemaker is concerned. We have no quarrel with those who desire to enforce prohibition, but we do believe that justice and fair play is worthy of attention on the part of the members of the Anti-Saloon League just the same as anyone else.

WHAT a fine thing it would be if we could adopt the plan of the members of the legal profession and have retainer fees. A retainer fee to a lawyer means absolutely nothing except that he promises to take some interest in a case, or that he agrees to render some services later for which he will charge a good fee. In other words, a retainer fee is clear "velvet," no service having been rendered, and with no intention of doing else than promising to look into the case later. What a fine thing it would be to have our patients pay a retainer fee in anticipation of some services to be rendered later for

which services the customary fees will be charged. However, let's not think of it, for doctors have to earn every cent they get, and usually they are obliged to render about four times as much service as they get pay for in even the best paying cases.

PERHAPS we may seem hypercritical but we would like to suggest that our councilors ought to be more active in promoting all that makes for a harmonious and progressive medical profession throughout our state. It may be that some county medical societies may think that a councilor is presumptuous in offering his services, but in reality when it can be shown that the councilor's only interest in the medical societies of his district is to promote harmony and progress it seems to us that he may be excused for any seeming officiousness. The councilor can do much to increase scientific interest and promote a cordial and friendly relation among the medical men of his district. The social side of the practice of medicine must not be omitted, and we suggest to councilors that they make particular effort to encourage social activity in the hope that many of the petty annoyances and jealousies among medical men may be wiped out through the medium of social contact.

COUNTY medical society secretaries should make it perfectly plain to all of their members that when they pay their dues the payment does not include dues to the American Medical Association nor entitle the one who is paying the dues to a subscription to the *Journal of the A. M. A.* This point is worthy of emphasis in view of the fact that some doctors who ought to know better write in to the A. M. A. office saying that they have paid their County Medical Society dues and wonder why in the name of common sense they are not getting the *Journal of the A. M. A.* Dues to county medical societies invariably include the dues to the state association, and with it carry a subscription to the state journal, but that is as far as the matter goes. If anyone desires to become a Fellow of the A. M. A. it will be necessary for him to make application in due form and pay the dues to that organization, after which he will be entitled to the *Journal of the A. M. A.* as one of the perquisites of Fellowship.

WE believe in public medical meetings, but whenever we arrange for such a meeting it should be understood that the speaker is to talk to laymen in a layman's language, so that a layman can understand. It may seem inexplicable, but it is a matter of fact that some of the brainiest and most conspicuous men in the medical profession know nothing about speaking to lay audiences. They never can get down to earth but always soar up in the heavens of scientific investigation and knowledge, and the talk usually goes right over the heads of the average lay audience. We call attention to this necessity of making the selection

of speakers with a great deal of caution in view of the prevailing tendencies on the part of luncheon clubs to invite medical men to address them. Here in Indiana all appointments should be filled by our Bureau of Publicity, and that Bureau will be particular in assigning someone who can talk intelligently and entertainingly in a layman's language though discussing highly scientific subjects.

THE haphazard methods of electing officers of medical societies should be abolished. In reality, the man should be fitted for the office to which he is elected, and the idea of putting a man in office merely because he wants the honor or because he happens to be the first one who is thought of for the position is ridiculous. We cannot expect to have a progressive and smooth-functioning medical organization without efficient and respected heads, and the positions of both president and secretary, the latter especially, are ones that deserve serious consideration at the hands of those who elect men to those positions. The secretary in particular should be an energetic man of good personality and with business ability. He should encourage others to activity, and at all times he should be progressive and a supporter of the highest ideals and traditions of the profession. The president by his position in the community and the example that he sets, should be an inspiration to the profession of his community. To put into office any but reputable and active men means defeat of the very aims and objects of the Association.

IN the Correspondence Department of this number of THE JOURNAL appears a letter from one of the members of our Association concerning the World Bonded Adjusters of Chicago, and the Fidelity Clearing and Statistical House of Milwaukee, Wisconsin, both of which concerns hold themselves out as collecting agencies, particularly for physicians. The complaint concerning the Milwaukee concern is a duplicate of what we have heard before. We have only to say that we have no faith of any kind whatsoever in any collecting agency unless it be Dunn and Bradstreet, for in our experience or from knowledge gained, practically each and every one of them, intentionally or unintentionally, swindles its patrons. For this reason we are refusing to carry the advertising of collection agencies unless we can satisfy ourselves that the agencies really are responsible and will do what they agree to do. Seldom if ever do we get a recommendation that can be substantiated. Therefore, we advise doctors to avoid placing their accounts in the hands of any collection agency, as usually the doctor himself or his special representative can accomplish a good deal more in the way of collecting accounts.

AN extension of the life of the Sheppard-Towner Act means an extension of subsidies to

states. The whole thing is wrong in principle and is very much like giving a healthy man a crutch to help him to walk. Concerning the dangers of federal subsidies it would be well for the senators and representatives to take into consideration what President Coolidge said at the sixth regular meeting of the business organizations of the government at Memorial Continental Hall on January 21, 1924. The following is a verbatim report of that portion of the President's address which deals with federal subsidies:

"I take this occasion to state that I have given much thought to the question of federal subsidies to state governments. The federal appropriations for such subsidies cover a wide field. They afford ample precedent for unlimited expansion. I say to you, however, that the financial program of the chief executive does not contemplate expansion of these subsidies. My policy in this matter is not predicated alone on the drain which these subsidies make on the national treasury. This of itself is sufficient to cause concern. But I am fearful that this broadening of the field of government activities is detrimental both to the federal and the state governments. Efficiency of federal operations is impaired as their scope is unduly enlarged. Efficiency of state governments is impaired as they relinquish and turn over to the federal government responsibilities which are rightfully theirs."

DR. ALBERT LOWENTHAL advertised that he would give a series of lectures before the lay citizens of Indiana at the Severin Hotel, Indianapolis, early in November. This man Lowenthal, as we pointed out in the November number of *The Journal*, has a rather bad reputation and has been written up unfavorably in some of the publications of the American Medical Association. He was prevented from doing any business in Louisville, Kentucky, by the State Board of Medical Registration and Examination of that state, and, acting on the information, we called the attention of our own Board to the matter. We are pleased to note that the secretary of our own Board notified Lowenthal that if he attempted to give the series of lectures that he proposed to give he would be arrested and prosecuted for an attempt to use the lecture platform as a cloak to decoy patients into his clutches for treatment. Lowenthal showed up at the Severin Hotel the day before he was expected to deliver his lectures, but immediately after receiving his notice from the State Board of Medical Registration and Examination he was taken with an attack of acute indigestion and left at once for Chicago. The query is put, was it the food that he ate at the Severin Hotel or was it the letter which greeted him on entering the Severin that caused his attack of acute indigestion. Any way, we wish to express our appreciation of the good work done by the State Board of Medical Registration and Examination in keeping this interloper out of Indiana, for we

already have too many of his stripe preying upon the citizens. Perhaps after while Indiana will cease to be the dumping ground for every medical imposter in the country.

DEATHS

F. M. JONES, M.D., of Gary, died November 5, aged forty-eight years. Dr. Jones graduated from the Louisville Medical College in 1894.

HENRY W. RIDPATH, M.D., died November 19, at his home in Indianapolis. Doctor Ridpath was sixty-seven years of age. He graduated from the Central College of Physicians and Surgeons, Indianapolis, in 1884.

BRODIE W. PARKS, M.D., of Bourbon, died October 30, aged seventy-five years. Doctor Parks was a graduate of the Rush Medical College, Chicago, in 1876. Doctor Parks was not in active practice at the time of his death.

JAMES R. ANTHONY, M.D., died November 4, at the Methodist Hospital, Indianapolis, following a long illness. Doctor Anthony was eighty-two years of age. He graduated from the Medical College of Ohio, Cincinnati, in 1874.

GEORGE W. HAUENSTEIN, M.D., of Elkhart, died November 8, as the result of a streptococcal infection resulting from the prick of a sandbur. Dr. Hauenstein was sixty-four years of age. He graduated from the University of Illinois College of Medicine, Chicago, in 1893.

CHARLES C. COTTON, M.D., of Elwood, Indiana, died November 13, aged sixty-one years. Doctor Cotton graduated from the University of Louisville School of Medicine in 1891. He was a member of the Madison County Medical Society, the Indiana State Medical Association, and the American Medical Association.

NEWS NOTES AND PERSONALS

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION*. Patronize these advertisers, for it means a continuance of their advertising patronage, and the latter means a larger and better *Journal* for you.

DR. L. H. COOK, of Bluffton, Indiana, has been critically ill for several weeks but is now improving.

DR. TRACY O'BRIEN, of Terre Haute, has moved to Clayton to take over the practice of his father, Dr. T. J. O'Brien, who died recently.

DR. PERRY G. MOORE, of Wabash, celebrated his sixtieth year in the practice of medicine November 15th. Dr. Moore is eighty-one years old.

THE American Dietetic Association held its ninth annual meeting at the Ambassador Hotel, Atlantic City, New Jersey, October 11, 12 and 13.

DR. CLEON A. NAFE has announced the opening of his office at 902 Hume-Mansur Building, Indianapolis, for the practice of general and abdominal surgery.

A. J. HOSTETTLER, M.D., of LaGrange, has been selected as a member of the Indiana State Board of Health to fill the vacancy caused by the resignation, some time ago, of Dr. H. C. Haas, of Peru.

DR. OSCAR C. BREITENBACH, formerly of Columbus, Indiana, has taken over the offices of Dr. Charles M. Robertson, who had offices both at Waukegan, Illinois, and 30 North Michigan Boulevard, Chicago.

At the November 19th meeting of the Muncie Academy of Medicine held at the Hotel Roberts, Professor Alan Graham, of Western Reserve University, Cleveland, Ohio, presented a paper on "Toxic Goitre."

THE Indiana State Medical Association is indebted to Dr. Wm. F. King for his courtesy in securing Mr. Raymond Bright to operate the lanterns for the meetings of the Association at West Baden.

THE Tippecanoe County Medical Society held its regular meeting at Lafayette, November 11th. Dr. D. L. Sexton, of St. Louis, Missouri, presented a paper, his subject being "Diagnosis and Treatment of Ductless Gland Disorders."

THE Northeastern Indiana Academy of Medicine held a meeting at Gawthrop Inn, Kendallville, Indiana, December 2nd. Dr. George P. Myers, of Detroit, Michigan, presented a paper on "The Treatment of the More Common Fractures."

THE Madison County Medical Society held its regular monthly meeting at Anderson, November 17. Dr. H. F. Beckman, of the Indiana University School of Medicine, presented a paper on "Some Phases of Better Obstetric Training and Service."

THE Muncie Academy of Medicine held its regular meeting at the Hotel Roberts, October 12th. Dr. R. W. Scott, of the Western Reserve University School of Medicine, presented a paper, his subject being "Facts on the Heart." The paper was illustrated with lantern slides.

THE Northeastern Indiana Academy of Medicine held a dinner meeting at Gawthrop Inn, Kendallville, Indiana, October 14th. Following the

dinner Dr. Manley J. Capron, of the Battle Creek Sanitarium, Battle Creek, Michigan, presented a paper on "The Treatment of Chronic Myocarditis."

THE United States Civil Service Commission announces open competitive examination for Junior Medical Officer (interne). Applications must be on file at Washington, D. C., not later than December 30, 1926. Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C.

THE Medical Department of the Indiana University School of Medicine at Bloomington has been presented with a six-volume Medical and Surgical History of the War of the Rebellion, issued under the direction of the Surgeon General. The set is presented by Dr. William R. Cravens, of Bloomfield, who had inherited the set from his father, Dr. S. C. Cravens. The volumes are beautifully illustrated and are considered a valuable addition to the library.

IN May of next year a group of physicians with members of their families from the United States and Canada, under the direction of the Inter-State Post Graduate Medical Association of North America, will sail from New York to visit London, Edinburgh, Oslo, Stockholm, Upsala, Lund, Copenhagen, Hamburg, Leipzig, Munich, Strasbourg, Heidelberg, Frankfurt and Paris. Information and details may be obtained by writing to Dr. William B. Peck, Freeport, Illinois, or the Travel Department of the American Express Company, 65 Broadway, New York City.

THE Indianapolis Ophthalmological and Otolaryngological Society has announced its program for the season 1926-1927. Meetings will be held monthly at the Indianapolis Athletic Club and will be preceded by dinner. Meetings are open to all members of the State Section on Ophthalmology and Otolaryngology. Dr. W. I. Lillie, of Rochester, Minnesota, is scheduled to talk before the society on February 10th; Dr. Harry S. Gradle and Dr. Joseph C. Beck, both of Chicago, March 10th; Dr. F. E. Woodruff, St. Louis, Missouri, April 14th; and Dr. Frank Brawley, Chicago, May 12th. Anyone wishing to attend will please notify the secretary, Dr. Kenneth L. Craft, 1003 Hume-Mansur Building, Indianapolis.

SURGEON GENERAL HUGH S. CUMMING has announced that the United States Public Health Service, as a part of its cooperative work with state health departments in the control of venereal disease, will give special courses of training to physicians, clinicians, and health officers at its venereal disease clinic, Hot Springs, Arkansas. Fees are not charged for this course of instruction.

Interested physicians should write to the local state health officer or to the Surgeon General, United States Public Health Service, Washington, D. C., for information or application blanks. Applications should be endorsed by the state health department in which the applicant resides before being submitted to the United States Public Health Service.

THE committee appointed by President Combs to represent the Indiana State Medical Association in the diphtheria immunization campaign met with representatives from the State Parent-Teacher Association and the State Department of Health December 1st. The association committee consists of Dr. C. H. Good, of Huntington, Dr. W. H. Stemm, of North Vernon, and Dr. J. Don Miller, of Indianapolis. Preliminary plans for cooperation were agreed upon and various suggestions as to the part the State Medical Association, the State Parent-Teacher Association and the State Department of Health should take in carrying out this cooperative campaign were adopted. A more detailed report of this meeting will appear in the January issue of THE JOURNAL.

In addition to the articles already enumerated the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

B. B. Culture Laboratory, Inc.

Bacillus Acidophilus Culture (B. A. Culture).
Eli Lilly & Co.:

Pertussis Vaccine-Lilly, 5 cc.

Scarlet Fever Streptococcus Antitoxin-Lilly
(Refined and Concentrated), 1 syringe.

H. K. Mulford Co.:

High Ragweed Pollen Extract-Mulford;
Lamb's Quarters Pollen Extract-Mulford;
Low Ragweed Pollen Extract-Mulford; Rag-
weed Pollen Extract (Fall)-Mulford;
Timothy Pollen Extract (Spring)-Mulford;
Water Hemp Pollen Extract-Mulford; Worm-
wood Pollen Extract-Mulford.

Butternut Protein Extract-Mulford; Cheese
Protein Extract-Mulford; Cherry Protein Ex-
tract-Mulford; Coconut Protein Extract-
Mulford; Crab Protein Extract-Mulford;
Duck Protein Extract-Mulford; Duck
Feathers Protein Extract-Mulford; Garlic
Protein Extract-Mulford; Ginger Pro-
tein Extract-Mulford; Goose Protein Extract-
Mulford; Grape Protein Extract-Mulford;
Grapefruit Protein Extract-Mulford; Had-
dock Protein Extract-Mulford; Halibut Pro-
tein Extract-Mulford; Herring Protein Ex-
tract-Mulford; Mustard Protein Extract-
Mulford; Nutmeg Protein Extract-Mulford;
Paprika Protein Extract-Mulford; Parsley
Protein Extract-Mulford; Parsnip Protein
Extract-Mulford; Peach Protein Extract-
Mulford; Pear Protein Extract-Mulford;

Pecan Protein Extract-Mulford; Pineapple
Protein Extract-Mulford; Prune Protein Ex-
tract-Mulford; Raisin Protein Extract-Mul-
ford; Shrimp Protein Extract-Mulford; Sole
Protein Extract-Mulford; Tuna Fish Protein
Extract-Mulford; Turnip Protein Extract-
Mulford; Walnut (Black) Protein Extract-
Mulford.

Scarlet Fever Streptococcus Antitoxin Concen-
trated (for the blanching test), 1 cc.
Parke, Davis & Co.:

Ovarian Residue Soluble Extract-P. D. & Co.
Ampules Ovarian Residue Soluble Extract-
P. D. & Co., 1 cc.

Richards, Inc.:

Psyllium Seed-Richards.

Nonproprietary Articles:

Psyllium Seed.

CHANGE OF AGENCY

Siomine, formerly distributed by Howard-Holt Company, is now distributed by Pitman-Moore Company, which supplies $\frac{1}{2}$ grain., 1 gr., 2 gr., and 5 gr. capsules. The Council has continued the acceptance of Siomine under the new distributor.

SOCIETIES AND INSTITUTIONS

INDIANA STATE MEDICAL ASSOCIATION

BUREAU OF PUBLICITY

October 18, 1926.

Meeting called to order at 4:45 p. m.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D.,
and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held October 11, read and approved.

The article, "Where Do You Sleep?" read, corrected and approved for release to the newspapers on October 25.

The secretary reported that speaking dates had been filled for the Tri-County Medical Society at North Vernon on October 20, and the Third District Medical Society meeting at Bedford on October 28.

An editorial in the American Medical Association Journal of October 9 upon "Personal Exploitation Through Health Publicity," came to the attention of the Bureau. The secretary was instructed to write the following letter to the editor of THE JOURNAL:

Oct. 18, 1926.

Editor The Journal,
American Medical Association,
Chicago, Ill.
Sir:

The interesting editorial in the Journal of the American Medical Association on October 9, 1926, entitled "Personal Exploitation Through Health Publicity," is of especial interest to the physicians of Indiana.

You may be interested in knowing that the Bureau of Publicity of the Indiana State Medical Association sends to each of its speakers rules which have been adopted by the Bureau and are regarded as desirable in avoiding any "personal puffery" on the part of any individual physician.

As executive secretary of the Indiana State Medical Association, the undersigned (who is not a physician) is directed to accompany each written invitation to a speaker with the following rules. We are glad to report that in Indiana since the adoption of this plan we have had no reports of efforts on the part of our speakers to indulge in self-exploitation.

The following suggestions have been sent to each speaker for the past three years accompanying letters of

invitation to address professional or lay audiences on topics suggested by the Bureau of Publicity:

SUGGESTIONS FOR SPEAKERS

The following suggestions are offered, not because we feel that any particular man needs them, but because there are many pitfalls which the physician is sometimes drawn into, in the relations with the public.

1. The use of scientific terms should be avoided when speaking to a lay audience.
2. Do not talk over thirty minutes, unless urged to do so.
3. Please keep closely to your subject.
4. Put pep into your talk and speak loud enough for all to hear.
5. Speakers should arrive at least a few moments before the hour announced.
6. It is suggested that speakers endeavor to present the composite view of the profession in their addresses to the public.
7. It is advisable to avoid citation of personal case reports, and kindly aid the Bureau of Publicity in its efforts to make all presentation of its work as impersonable as possible.
8. It is suggested that you read an extract from the California State Journal of Medicine, page 90, the American Medical Journal Bulletin, March, 1924. We feel that this situation will not occur in Indiana because we are profiting by their experience.

Respectfully yours,
Executive Secretary Indiana State Medical Association.

The secretary was authorized to prepare an informal statement concerning Olin West's remarks upon the work of the Bureau of Publicity.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole October 25, 1926.

S. E. EARP, M.D., Acting Chairman.
THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

November 1, 1926.

Meeting called to order at 5 o'clock.

Present: S. E. Earp, M.D.; Murray N. Hadley, M.D., and Thomas A. Hendricks.

Minutes of the meeting held October 18, read and approved

The following bills were approved for payment:

Hume-Mansur Co., rent and elec.	\$ 2.00
The Kautz Stationery Co.	1.90
The Bailey Office Supply	15.00
The H. Lieber Co.	5.70
Simmons Ink Co., Inc.	9.15
Central Press Clipping Service	5.00
Remington Typewriter Co.	2.20

Total \$40.95

The release "Pork as Food" for Monday, November 8, read, corrected and approved.

Letter read from the American Medical Association concerning the so-called National Health League and Paul O. Sampson.

Letter received from F. V. Cargill, circulation manager of Hygeia, and secretary instructed to get in touch with the proper person at the Indiana Bell Telephone Company in order to explain the benefits of Hygeia.

Letter received from the editor of the Markle Journal, Markle, Indiana, asking to be placed upon the list of newspapers receiving weekly releases.

Report received from the councilor of the First district upon the Southwestern Indiana Teachers meeting at Evansville, October 21-23. Report says that the speaker addressed 1,600 teachers upon the value of Hygeia, the official publication for the lay public by the American Medical Association.

Program director of W. F. B. M. instructs secretary the lid is down on long talks. The secretary instructed

to prepare a series of talks not more than one and a half minutes in length that may be used as fillers by station WFBM.

There being no further business the meeting was adjourned.

The above minutes were approved in each separate part and as a whole November 8, 1926.

WM. N. WISHARD, M.D., Chairman.
THOS. A. HENDRICKS, Secretary.

BUREAU OF PUBLICITY

November 8, 1926

Meeting called to order at 4:45 P. M.

Present: Wm. N. Wishard, M.D.; S. E. Earp, M.D.; Murray N. Hadley, M.D.; and Thomas A. Hendricks, executive secretary.

The minutes of the meeting held November 1 read, corrected and approved.

The following bills approved for payment:

Charles D. Zacher & Sons	\$7.65
American Linen Supply Co.	1.60

Total \$9.25

The release "Two Winter Warnings" read, corrected and approved.

Letter received from the executive secretary of the Bureau of Health and Public Instruction of the American Medical Association concerning the conference on periodic health examinations to be held November 20 at the American Medical Association. Secretary authorized to attend this meeting at Chicago, which will be held in conjunction with the annual state secretaries' conference.

Letter received from the Tri-County Medical Society, composed of Jennings, Jackson and Bartholomew counties, thanking the bureau for supplying a speaker for October 20.

Bureau considers plan for periodic health examination meeting for the Indianapolis Medical Society.

Bureau receives request for copies of the warning issued last year against Benarr Macfadden.

There being no further business, the meeting was adjourned.

The above minutes were approved in each separate part and as a whole November 15, 1926.

WM. N. WISHARD, M.D.,
Chairman.
THOS. A. HENDRICKS,
Secretary.

TIPPECANOE COUNTY MEDICAL SOCIETY

Lafayette, Ind., November 11, 1926.

The Tippecanoe County Medical Society met in regular session with a clinic at St. Elizabeth Hospital, banquet at the Lahr Hotel, followed by an address on "Diagnosis and Treatment of Ductless Gland Diseases." Unfortunately Dr. Engelbach was confined to the hospital and unable to attend but we were fortunate in securing his associate, Dr. D. L. Sexton, who very ably conducted the clinic and gave the address, splendidly illustrated by lantern slides.

One case was presented at the clinic, being diagnosed as post-adolescent hypo-gonadism with some evidence of pituitary involvement. About fifty were in attendance at the clinic, fifty were present at the banquet and eighty were present for the address. Dr. Sexton was very highly complimented on the clear and concise way he presented the subject.

The minutes of the October meeting were read and approved. The applications for membership in our society of the following named physicians were read for the first time: S. E. McClure, Ernest L. Lanman, Will W. Washburn, S. J. Miller, and W. Ivan King, who comes by transfer from Kankakee County Medical Society, Illinois.

A communication from the Board of State Charities was read and the program for the annual meeting to be

(Continued on Page 511)

INDEX TO VOLUME XIX

ORIGINAL ARTICLES	PAGE		PAGE
A			
Actinomycosis (Buchsbaum).....	191	Iodine in the Treatment of Exophthalmic Goitre (Giordano)	63
Alimentary Disturbances in Infants, Acute (Mitchell)	135	K	
Anesthesia, Local, in Caesarean Section (McCormick)	188	Kahn Test, Clinical Observations on the (Duemling).....	272
Appendicitis (McDonald)	58	Keratitis, Loss of Vision with Special Reference to Interstitial and Phlyctenular (Loeb).....	327
Appendicitis, Acute, Delay and Its Consequences in (Cameron)	454	L	
B			
Bichloride of Mercury Poisoning, Renal Decapsulation in (Denny).....	186	Labor, Conduct of Ordinary (MacKenzie).....	439
Biochemistry, Applied (Kime)	238	M	
Brain Injuries, Diagnosis and Treatment of (Rang) ..	21	Malaria Therapy of Paresis (Bahr).....	481
C			
Calcium Salts in the Treatment of Tuberculosis, The Use of (Beasley).....	240	Malignant Metastasis Within the Thorax (Oakman) ..	303
Cases, Two Unusual (Elston).....	488	Medical Education, Some Problems in (Myers).....	446
Caesarean Section Under Local Anesthesia (McCormick)	188	Medical Ethics, Brief History of (Keiper).....	221
Chorea Gravidarum (Kaffesieder).....	314	Mental Cases, Guidance in the Mild (Johnson).....	449
Choroid, Hemangioma of the (Lent).....	443	Mercury Bichloride Poisoning, Renal Decapsulation in (Denny)	186
Coccygodynia (Drueck)	275	Metastasis Within the Thorax, Malignant (Oakman).....	303
Colitis (Larimore)	299	Middle Ear Suppuration, Chronic (MacKenzie).....	1
Colitis versus Chronic Cholecystitis, Chronic (Collett)	330	Milk Injections in Gynecology and Obstetrics (Gellhorn)	229
Country Doctor, Romance of (Good).....	341	N	
D			
Diabetes, The Insulin Treatment of (McCaskey).....	149	Nephritis, Chronic (Mix).....	15
Dyspepsia in the Breast Fed Infant (Harrell-Boyd).....	402	O	
E			
Ear, Diagnosis of Chronic Middle, Suppuration (MacKenzie)	1	Obstetrics, Milk Injections in Gynecology and (Gellhorn)	229
Education, Some Problems in Medical (Myers).....	446	Oriental Medicine, Comparative Study of (Wiedemann)	311
Emotional Life and Importance in Pathological Conditions (Emerson)	475	P	
Ethics, a Brief History of Medical (Keiper).....	221	Paralytic Feet, Operative Treatment of (Mumford).....	309
Ethmoid Disease, Some Fundamental Points in Diagnosis and Treatment of (Heitger).....	5	Paresis, Malaria Therapy of (Bahr).....	481
Extrauterine Pregnancy (Nafe).....	332	Pathological Conditions, Emotional Life and Importance in (Emerson).....	475
Eye, Foreign Bodies In, Failure of X-Rays to Detect (Morrison)	453	Perineum, Repair of the (Williams).....	145
F			
Fallopian Tube, Volvulus of the (Gabe).....	98	Pelvic Infections (Strong).....	108
Fever, Acute Rheumatic (Heyn).....	93	Peritonitis, Factors in the Management of (Babcock) ..	51
Fever, Rat Bite (Baker).....	261	Pregnancy, Extrauterine (Nafe).....	332
Foreign Bodies in the Eye, Failure of X-ray to Detect (Morrison)	453	Presentation, Transverse (Fair).....	69
G			
Gall Bladder Disease, Some Phases of (Douglas).....	270	Prostatic Obstruction (Rupel).....	340
Glioma of the Retina (Holland-Rutherford).....	234	R	
Goitre, Iodine in the Treatment of Exophthalmic (Giordano)	63	Radiographic Examinations as a Factor in the Diagnosis of Chronic Respiratory Infections (Stayton)	193
Goitre, Some Neglected Factors of (Austin).....	478	Rat Bite Fever (Baker).....	261
Gynecology, Milk Injections in Obstetrics and (Gellhorn)	229	Reconstruction Work in Middle Life (Scherer).....	113
H			
Heart Disease, Drugs in the Treatment of (Bond).....	65	Renal Decapsulation in Bichloride of Mercury Poisoning (Denny)	186
Hemangioma of the Choroid (Lent).....	443	Retina, Glioma of the (Holland-Rutherford).....	234
Hernias, Intra-Abdominal with Report of Case (Elston)	157	Rheumatic Fever, Acute (Heyn).....	93
I			
Infections, Pelvic (Strong).....	108	Romance of the Country Doctor, The (Good).....	341
Infant, Breast Fed, Dyspepsia in (Harrell-Boyd).....	402	S	
Insulin Treatment of Diabetes, The (McCaskey).....	149	Shock, Shall We Wait for It to Pass Before Operation? (Porter)	401
Intra-Abdominal Hernias with Report of Case (Elston)	157	Sponge Control in the Operating Room (Jett).....	152
Intracranial Sinuses, Thrombosis of (Rutherford).....	264	Strabismus, Divergent (Egan)	101
		Suppuration, Diagnosis of Chronic Middle Ear (MacKenzie)	1
		Syphilis, The Invasion of (Cregor-Gastineau).....	185
		Syphilis, The Treatment of (Cregor-Gastineau).....	305
		T	
		Thorax, Malignant Metastasis Within The (Oakman)	303
		Thrombosis of Intracranial Sinuses (Rutherford).....	264
		Transverse Presentation (Fair).....	69
		Tuberculosis of Out-Patients, Biological Diagnosis and Treatment of (Loewenstein).....	395
		Tuberculosis, The Use of Calcium Salts in the Treatment of (Beasley).....	240
		Tularemia (Asbury)	404

	PAGE		PAGE
U		H	
Urologic Problems, Particularly Prostatic Obstruction, Comment on Our Present Conception of (Rupel)	340	HARRELL, T. H., and BOYD, ELMER, Evansville, Ind. (Dyspepsia in the Breast Fed Infant)	402
V		HEITGER, JOSEPH D., Louisville, Ky. (Some Fundamental Points in Diagnosis and Treatment of Ethmoid Disease)	5
Vaccine, Pathogen Selective (Kauffman)	486	HEYN, LOUIS G., Cincinnati, Ohio. (Acute Rheumatic Fever)	93
Ventilation, What We Know About (Willard)	159	HOLLAND E. E., Richmond, Ind., and RUTHERFORD, C. W., Indianapolis, Ind. (Glioma of the Retina)	234
Volvulus of the Fallopian Tube (Gabe)	98	J	
Vision, Loss of, with Special Reference to Interstitial Keratitis (Loeb)	327	JETT, FRANK H., Terre Haute, Ind. (Sponge Control in the Operating Room)	152
X		JOHNSON, PAUL S., Richmond, Ind. (Guidance in the Mild Mental Case)	449
X-Ray, Failure of to Detect Foreign Bodies in the Eye (Morrison)	453	K	
AUTHORS		KAFFESEIDER, LEWIS K., Los Angeles, Cal. (Chorea Gravidarum—Is Termination of Pregnancy Advisable in Severe Cases?)	314
A		KAUFFMAN, D. E., Monroeville, Ind. (Pathogen Selective Vaccine)	486
ASBURY, W. D., Terre Haute, Ind. (Tularemia with Report of Two Cases)	404	KEIPER, GEORGE F. (Deseased), Lafayette, Ind. (Brief History of Medical Ethics)	221
AUSTIN, M. A., Anderson, Ind. (Some Neglected Factors of Goitre)	478	KIME, EDWIN N., Indianapolis, Ind. (Applied Biochemistry)	238
B		L	
BABCOCK, W. WAYNE, Philadelphia, Pa. (Factors in the Management of Peritonitis)	51	LARIMORE, JOSEPH W., St. Louis, Mo. (Colitis)	299
BAHR, MAX A., Indianapolis, Ind. (Malaria Therapy of Paresis)	481	LENT, E. J., and LYON, MARTHA B., South Bend, Ind. (Hemangioma of the Choroid)	443
BAKER, HERMAN M., Evansville, Ind. (Rat Bite Fever)	261	LOEB, CLARENCE, Chicago, Ill. (Loss of Vision, with Special Reference to Interstitial Phlyctenular Keratitis)	327
BEASLEY, THOMAS J., Indianapolis, Ind. (Calcium Salts in the Treatment of Tuberculosis)	240	LOEWENSTEIN, PROF. ERNST, Vienna, Austria. (Biological Diagnosis and Treatment of Tuberculosis of Out-Patients)	395
BOND, GEORGE S., Indianapolis, Ind. (Drugs in the Treatment of Heart Disease)	65	LYON, MARTHA B., and LENT, E. J., South Bend, Ind. (Hemangioma of the Choroid)	443
BOYD, ELMER, and HARRELL, T. H., Evansville, Ind. (Dyspepsia in the Breast Fed Infant)	402	M	
BUCHSBAUM, MAURICE, Gary, Ind. (Actinomycosis)	191	MACKENZIE, GEORGE W., Philadelphia, Pa. (Diagnosis of Chronic Middle Ear Suppuration)	1
C		MACKENZIE, PIERCE, Evansville, Ind. (Conduct of Ordinary Labor)	439
CAMERON, D. F., Fort Wayne, Ind. (Delay and Its Consequences in Acute Appendicitis)	454	MCCASKEY, GEORGE W., Fort Wayne, Ind. (Insulin Treatment of Diabetes)	149
COLLETT, GEORGE A., Crawfordsville, Ind. (Chronic Colitis Versus Chronic Cholecystitis)	330	MCCORMICK, C. O., Indianapolis, Ind. (Caesarian Section Under Local Anesthesia)	188
CREGOR, FRANK W., and GASTINEAU, FRANK M., Indianapolis, Ind. (Invasion of Syphilis)	185	MCDONALD, A. C., Warsaw, Ind. (Appendicitis)	58
CREGOR, FRANK W., and GASTINEAU, FRANK M., Indianapolis, Ind. (The Treatment of Syphilis)	305	MITCHELL, A. GRAEME, Cincinnati, Ohio. (Acute Alimentary Disturbances in Infants)	135
D		MIX, CHARLES LOUIS, Chicago, Ill. (Chronic Nephritis)	15
DENNY, E. RANKIN, Miami Beach, Florida. (Renal Decapsulation in Bichloride of Mercury Poisoning)	186	MORRISON, FRANK M., Indianapolis, Ind. (Failure of X-Ray to Detect Foreign Bodies in the Eye)	453
DOUGLASS, FRED M., Toledo, Ohio. (Some Phases of Gall Bladder Disease)	270	MUMFORD, E. B., Indianapolis, Ind. (Operative Treatment of Paralytic Feet)	309
DRUECK, CHARLES J., Chicago, Ill. (Coccygodynia)	275	MYERS, B. D., Bloomington, Ind. (Some Problems in Medical Education)	446
DUEMLING, W. W., Fort Wayne, Ind. (Clinical Observations on Kahn Test)	272	N	
E		NAFE, CLEON A., Indianapolis, Ind. (Extrauterine Pregnancy)	332
EGAN, BURTON W., Logansport, Ind. (Divergent Strabismus)	101	O	
ELSTON, LYNN W., Fort Wayne, Ind. (Intra-Abdominal Hernias with Report of Case)	157	OAKMAN, CARL S., Muncie, Ind. (Malignant Metastasis Within the Thorax)	303
ELSTON, LYNN W., Fort Wayne, Ind. (Two Unusual Cases)	488	P	
EMERSON, CHARLES P. (Emotional Life and Importance in Pathological Conditions)	475	PORTER, MILES F., Fort Wayne, Ind. (Shall We Wait for Shock to Pass Before Operating?)	401
F		R	
FAIR, H. D., Muncie, Ind. (Transverse Presentation with Report of Case)	69	RANG, ARTHUR A., Washington, Ind. (Diagnosis and Treatment of Brain Injuries)	21
G		RUPEL, ERNEST, Indianapolis, Ind. (Comment on Our Present Conception of Some Urologic Problems, Particularly Prostatic Obstruction)	340
GABE, WILLIAM E., Indianapolis, Ind. (Iodine in the Treatment of Exophthalmic Goitre)	63	RUTHERFORD, C. W., Indianapolis, Ind. (Thrombosis of Intracranial Sinuses)	264
GASTINEAU, FRANK M., and CREGOR, FRANK W., Indianapolis, Ind. (Invasion of Syphilis)	185		
GASTINEAU, FRANK M., and CREGOR, FRANK W., Indianapolis, Ind. (Treatment of Syphilis)	305		
GIORDANO, A. S., South Bend, Ind. (Iodine in Treatment of Exophthalmic Goitre)	63		
GOOD, CHARLES H., Huntington, Ind. (The Romance of the Country Doctor)	341		

	PAGE		PAGE
RUTHERFORD, C. W., Indianapolis, Ind., and HOL- LAND, E. E., Richmond, Ind. (Glioma of the Retina)	234	Health Officers, Chiropractors as	495
S		Hemorrhoids	244
SCHERER, S. P., Martinsville, Ind. (Reconstruction Work in Middle Life)	113	Home for Indigent Physicians	494
STAYTON, CHESTER A. (Radiographic Examination as a Factor in the Diagnosis of Chronic Respira- tory Infections)	193	Hospital, Henry Ford	203
STRONG, THOMAS J., Peru, Ind. (Pelvic Infections, Especially Salpingitis)	108	Hospitalization and Nursing, Cost of	74
W		Hospital and Medical Service, Cost of	247
WIEDEMANN, FRANK E., Terre Haute, Ind. (Com- parative Study of Oriental Medicine)	311	I	
WILLARD, A. C., Urbana, Ill. (What We Know About Ventilation)	159	Indemnity Insurance, Cheap	163
WILLIAMS, W. H., Lebanon, Ind. (Repair of the Perineum)	145	Indiana, Public Health In	75
EDITORIALS		Indiana Vital Statistics for 1925	494
A		Industrial Cases, Fees In	248
Advertising, Rules for Selecting Medical	282	Insurance, Cheap Indemnity	163
Alkali Legislation, Caustic	165	Insurance, Automobile for Physicians	74
A. M. A., Dallas Session of	202	Interpretation of Roentgenograms	457
Athletes, Do They Die Young?	77	K	
Automobile Insurance for Physicians	74	Koch Cancer Cure	245
B		Koch Cancer Cure, Why We Condemn The	417
Business of Medicine	318	L	
Business Recognizes Only Scientific Medicine	459	Lay Publications, Medical and Surgical Articles In	458
C		Legislation, Caustic Alkali	165
Cancer Cure, Koch	245	Licensing Opticians	281
Cancer Mortality	71	M	
Chiropractic, Government Approval of	118	Malaria, Exterminate, by Exterminating Mosquitoes	280
Chiropractic, Not Harmless	119	Maternal Mortality in Childbirth	418
Chiropractors as Health Officers	495	Mechanotherapy Commercialism	166
Chiropractors Pay One Hundred Twenty Dollars Per Year Annual Dues	165	Medical and Surgical Articles in Lay Publications	458
Commercialism, Mechanotherapy	166	Medical Work, Graduate, in New York	377
Convention Facilities	204	Medicine, the Business of	318
Cost of Hospital and Medical Service	247	Medicine, Rewards of	459
Cost of Hospitalization and Nursing	74	Medicine, Socialistic	72
Crime, Suppression of	377	Mental Defectives, Sterilization of	164
Cross Eyes	203	Mortality, Cancer	71
D		Mortality, Maternal, in Childbirth	418
Dallas Session of the A. M. A.	202	O	
Diagnostic Tests for Syphilis	76	Opticians, Licensing	281
Diphtheria Deaths, Contributory Causes of	496	Optic Nerve in Relation to Sphenoidal Sinus	163
Diphtheria Prevention	117	P	
Doctor and His Fees	166	Penalty of Quackery	458
Doctors in Politics	493	Physical Therapy, Post Graduate Courses in	495
E		Physicians, Attacked for Not Giving	246
Endocrine Disturbances, Fallacies in Theories Con- cerning	163	Physicians, Home for Indigent	494
Ethics, Ten Commandments of Medical	30	Political Platform, Our	282
Exterminate Malaria by Exterminating Mosquitoes	280	Politics, Doctors In	493
Eyes, Cross	203	Practitioner, Private, Versus Federalized Medical Treatment	283
F		President, Our	375
Facilities, Convention	204	Propaganda, Usefulness Of	493
Fakery, Rejuvenation	164	Public Health in Indiana	75
Fallacies in Theories Concerning Endocrine Dis- turbances	163	Q	
Federalized Medical Treatment Versus Private Prac- titioners	283	Quackery, Fighting Medical	417
Fees for Professional Services in Hospital Supported by Taxation	118	Quackery, Penalty of	458
Fees in Industrial Cases	248	R	
Fees, the Doctor and His	166	Reducing, Medical Advice Concerning	117
Fighting Medical Quackery	417	Rejuvenation, Fakery	164
Follies, The Medical	31	Rewards of Medicine	459
Ford Hospital	73	Riley Memorial Hospital	375
Ford, Henry, Hospital	203	Riley Memorial Hospital	415
G		Rocky Mountain Spotted Fever, Vaccine Treatment of	33
Gorgas Institute	74	Roentgenograms, Interpretation of	457
Government Approval of Chiropractic	118	Rules for Selecting Medical Advertising	282
H		S	
Hay Fever	317	Scarlet Fever Antitoxin, Therapeutic Results with Concentrated	30
Hay Fever	416	Scientific Medicine, Big Business Recognizes Only	459
		Sheppard-Towner Act, Repeal The	280
		Sheppard-Towner Idea, Perpetuation of	496
		Socialistic Medicine	72
		Sphenoidal Sinus, Relationship of Optic Nerve to	163
		Statistics, Indiana Vital, for 1925	
		Sterilization of Mental Defectives	164
		Suppression of Crime	377
		Syphilis, Diagnostic Tests for	76
		U	
		Ultraviolet Ray Therapy	493
		V	
		Vaccine Treatment of Rocky Mountain Spotted Fever	33

	PAGE		PAGE
W		McMurty, T. J.	215
West Baden Session	317	McNeil, C. A.	175
West Baden Session	414	Miller, Don L.	470
SPECIAL ARTICLES		Mitchell, William P.	324
Clearing Up the Quacks	198	Moore, W. H. H.	175
Control of Scarlet Fever, by Drs. George F. and Gladys H. Dick, Chicago	406	Murphy, O. C.	470
Editors and Secretaries' Conference	28	O	
Graduate Medical Instruction in Indiana	277	O'Brien, Thomas J.	427
Indiana School of Medicine, News Notes From	411	P	
More Adequate Support Needed for Indiana University	314	Parks, Brodie W.	501
News Notes from Indiana University School of Medicine	160, 199, 489	Potts, J. Frank	386
Summer Courses in Indiana University School of Medicine	198	Prall, Ezra	84
Ventilation	409	Presley, I. N.	175
		Province, William M.	40
DEATHS		R	
A		Robertson, J. Frank	40
Alexander, J. C.	84	Ross, John J. C.	426
Anthony, James R.	501	Rice, W. H.	386
B		Ridpath, Henry W.	501
Barcus, Paul J.	84	S	
Bennett, J. H.	292	Schilling, John	215
Blackstone, W. B.	84	Schweizer, J. J.	386
Blankenbaker, O. G.	175	Sharrer, W. F.	386
Boyd, James M.	40	Slown, John N.	292
Brayton, A. W.	427	Sparks, Joseph T.	386
Buckingham, George B.	324	Sparks, M. W. (colored)	215
C		Stafford, William H.	470
Cady, N. W.	125	Stewart, Jonas	386
Chenoweth, F. A.	255	Stillson, J. O.	125
Clark, Andrew J.	426	Stork, J. H.	175
Connolly, W. A.	386	Stone, Frank L.	324
Costello, H. F.	125	Straughan, K. K.	125
Cotton, Charles C.	501	T	
D		Thompson, George W.	470
DeForest, Daniel A.	84	Thornton, Felix G.	40
Denney, J. A.	386	Todd, J. N.	470
DeWees, Roy E.	470	Tolliver, Milton P.	215
Dippell, E. T.	324	Towles, A. N.	125
E		Trumbo, Charles T.	125
Evans, E. M.	175	V	
F		Vanderburg, J. M.	386
Fisher, Benjamin T.	255	Varier, J. A.	386
Ford, Lanta W.	215	W	
Fritsch, William A.	175	Weer, H. H.	125
G		White, Sydney G.	215
Grandy, C. C.	175	Wiley, Harriet	470
Gray, E. E.	175	Williams, A. C.	175
Grisier, Frederick G.	324	Williams, C. M.	292
Gross, William O.	324	Williamson, A. A.	215
H		CORRESPONDENCE	
Hamilton, A. N.	125	Collection Agencies	512
Hanahan, J. H.	215	Miami As Is	179
Hatfield, B. F.	292	Sheppard-Towner Act, Effect Upon Indiana	130
Hauenstein, George W.	501	SOCIETIES AND INSTITUTIONS	
Haworth, Milton C.	427	A	
Hazlewood, F. W.	470	American Public Health Association	46
Horn, Amos H.	40	D	
Housmyer, Charles C.	292	Daviess-Martin County Medical Society	388
J		F	
Jones, F. M.	501	Floyd County Medical Society	472
Jordan, John S.	255	G	
K		Greene County Medical Society	88
Keiper, George F.	175	H	
Keller, H. E.	175	Huntington County Medical Society	511
L		I	
Lisman, S. J.	175	Indiana Academy of Ophthalmology and Otolaryngology	129
Lyons, Frank P.	255	Indiana State Medical Association	325
Lytle, John S.	215	Indiana State Medical Association:	
M		Bureau of Publicity	
Marsh, John L.	40	42, 86, 128, 180, 216, 257, 294, 326, 387, 434, 471, 503	
Martindale, H. C.	255	The Council	42
McGowan, T. J.	255		

	PAGE
House of Delegates.....	429
Treasurer's Report	128
K	
Kosciusko County Medical Society	47
L	
Lake County Medical Society.....	216
R	
Rush County Medical Society.....	89
S	
Secretaries and Editors, Conference of.....	45
T	
Third Councilor District.....	295, 512
Tippecanoe County Medical Society.....	88, 472, 504
Tri-County Medical Society.....	44
W	
Wabash County Medical Society.....	511

BOOK REVIEWS

A	
Abdominal Operations (Moynihan).....	219
Abt's Pediatrics (Abt).....	393
Annual Reprint of Reports of Council on Pharmacy and Chemistry of the A. M. A. for 1925.....	393
Asthma, Hay Fever, Urticaria and Other Allied Man- ifestations of Allergy (Duke).....	50
Art of Medical Treatment (Palfrey).....	Adv. p xx, April
B	
Bipolar Theory of Living Processes (Crile).....	392
Breast, On The (Fitzwilliams).....	220

C	
Chemical Pathology (Wells).....	260
Chemistry, Physiological, Laboratory Manual of (Rockwood).....	Adv. p. xx, July
Crippled Hand and Arm (Beck).....	Adv. p. xx, Feb.
D	
Developmental Anatomy (Arey).....	Adv. p. xx, August
Differential Diagnosis (Matthes).....	394
Differential Diagnosis (Cabot).....	Av. p. xx, May
Diseases of Nose, Throat and Ear (Ballenger).....	298
Diet in Health and Disease (Friedenwald).....	Adv. p. xx, May

E
Ear, Nose and Throat, Diseases of (Hays)-----
Adv. p. xx, Sept.
Eat Your Way to Health (Rose)-----393
Emergency Surgery (deTarnowsky)-----Adv. p. xx, Sept.

F	
Facts on the Heart (Cabot).....	260

Gynecology, Practice of (Jelletts).....	92
---	----

Handbook of Diseases of the Rectum (Hirschman).....	393
Headache: Its Cause and Treatment (Reilly).....	392

Infection, Immunity and Inflammation (Gurd).....	260
Intravenous Therapy (Dutton).....	Adv. p. xx, June

Manual of Psychiatry (Bowers).....	260
Materia Medica and Therapeutics (Wilcox).....	392
Mayo Clinic and Mayo Foundation, 1924, Collected Papers	Adv. p. xx, Feb.
Medical Diagnosis (Greene).....	Adv. p. xx, June
Medical Diagnosis, Textbook of (Anders-Boston).....	Adv. p. xx, April

Medical Dictionary (Gould).....	Adv. p. xxx, April	392
Medical Follies (Fishbein).....		50
Medical Formulary (Thornton).....	Adv. p. xx, April	
Methods in Surgery (Copher).....		298
Modern Methods of Amputation (Orr).....		392
Modern Surgery (DaCosta-Gross).....		92
Mouth, Throat, Nose, Ear and Eye (Odeneal).....		220

N

New and Nonofficial Remedies for 1926 (A. M. A.).....394

Nutrition Disorders of Infant and Child (Hess).....

.....Adv. p. xx, August

	PAGE
Operative Cystoscopy (Ryall).....	297
Physical Diagnosis of Diseases of the Chest (Pratt-Bushnell)	220
Potter's Therapeutics, Materia Medica and Pharmacy (Potter)	298
Practice of Urology (Young).....	474
Preventive Medicine (Boyd).....	Adv. p. xx, May
Principles of Surgery for Nurses (Woolf).....	260
Recollections of Thomas R. Marshall.....	50
Slit Lamp Microscopy of the Living Eye (Koby).....	Adv. p. xx, June
Sixty Years in Medical Harness (Johnson)	Adv. p. xx, July
Symptoms of Visceral Disease (Pottenger)	298
Therapy of Puerperal Fever (Koehler).....	

SOCIETIES AND INSTITUTIONS

(Continued from Page 504)

held in Lafayette November 20 to 23, was announced and the medical profession is urged to attend these meetings.

A communication from the American Society of Heating-Ventilating Engineers was read and the address of one of their members at a recent meeting was enclosed calling attention to some very important points pertaining to ventilating. By consent, the secretary was instructed to answer the communication as he sees fit.

The following bills were read and ordered paid:

II. Roth & Co., flowers for Ackerman home---\$10.00

Perry the Printer, 500 letters	3.75
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J. C. Burkle, stamps, addressing, mailing and speaker's meal	10.50
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There being no further business, the meeting adjourned.

J. C. BURKLE, M.D.,
Secretary.

HUNTINGTON COUNTY MEDICAL SOCIETY

November 18, 1926.

The Huntington County Medical Society held its regular meeting at the New LaFontaine Hotel November 9th. Dr. John T. Short, of Fort Wayne, presented a paper on "Genito-Urinary Infections." The meeting was one week late on account of the recent election.

There will be an election of officers at the next meeting, which will be held December 7.

G. M. NIE, M.D.,
Secretary.

WABASH COUNTY MEDICAL SOCIETY

November 19, 1926.

The Wabash County Medical Society met in regular session at the Hotel Dunbar, North Manchester, November 18, as guests of Doctors Beaman, Cripe and Warvel. The society voted to continue having offices closed on each Thursday afternoon and evening. The secretary was instructed to order *Hygeia* sent to each of the high schools and public libraries in the county. It was also decided to ask our State Representative to introduce a bill into the state legislature to prohibit the sale of iodine salt save on the prescription of a duly licensed physician.

Dr. Edgar F. Kiser, of Indianapolis, was speaker of the evening, his subject being "Heart Diseases, with Special Emphasis on Bacterial Endocarditis." The paper was followed by a general discussion.

Our esteemed octogenarian, Dr. P. G. Moore, of Wabash, celebrated his sixtieth anniversary in the practice of medicine on November 18th. At this meeting he exhibited some of his instruments that he used a half century ago. These instruments, along with many others, Dr. Moore has given to the Wabash County Historical Society and they are on exhibit in the museum in the court house in the city of Wabash.

O. G. BRUBAKER, M.D.,
Secretary.

THIRD COUNCILOR DISTRICT MEDICAL SOCIETY

The Third Councilor District Medical Society held its fall meeting at the Country Club, Bedford, Indiana, October 28th. Forty doctors and their wives were present. Papers were presented by Dr. C. W. Dowden, of West Baden, Dr. Perry Woolery, Holtonville, and Dr. W. D. Gatch, of Indianapolis. General discussion followed the reading of the papers.

The following officers, all of New Albany, were elected for 1927: Dr. Henry B. Shacklett, president; Dr. Anna McKamy, vice-president; and Dr. Hunt, secretary-treasurer.

The spring meeting of the society will be held at New Albany, in May, 1927.

JOHN A. GIBBONS,
Secretary.

CORRESPONDENCE

COLLECTION AGENCIES

Sellersburg, Ind., October 29, 1926.

Editor THE JOURNAL:

Following is the data concerning the collection methods of the "Fidelity Clearing and Statistical House," of Milwaukee, Wisconsin, and the "World Bonded Adjusters of Chicago":

First, the Milwaukee concern: In June of 1925 I placed in their hands a list for collection totaling about \$200. I answered their repeated inquiries stating that I had not collected on any of the list and asked what amount they had collected. They never stated the amount they had collected. I happened to see their agent and he showed that they had collected over \$50. In the meantime I had collected a few dollars—about six—and I reported it to them. I did not send their commission because they had not notified me of their results even though they often had promised to do so.

They still are collecting and I've seen not a cent of that which is due me.

Then I placed the same list in the hands of the "World Bonded Adjusters," whose agent informed me that they could make the other company come across. The result was a greater mix-up, and I have not heard officially from either company as to amounts collected or payments due me.

It seems to me their hand should be shown in every medical journal in the country, especially if these methods are employed generally.

Very cordially,
E. P. MITCHELL, M.D.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

IPRAL.—Calcium ethylisopropylbarbiturate.—Ipral has the therapeutic properties of barbituric acid, but it is soluble in water and is absorbed promptly. It is claimed that it is excreted rapidly, but some action persists for twenty-four hours. Ipral is used as a hypnotic to combat restlessness, irritability and sleeplessness. It is marketed

in 2-grain tablets only. E. R. Squibb & Sons, New York.

AMPULES RADIUM CHLORIDE, 2 cc.—UNITED STATES RADIUM CORPORATION (Radium Element, 50 Micrograms).—For a discussion of the actions, uses and dosage of radium chloride, see New and Nonofficial Remedies, 1926, p. 302, "Radium and Radium Salts." United States Radium Corp., New York.

AMPULES RADIUM CHLORIDE, 2 cc.—UNITED STATES RADIUM CORP. (Radium Element, 2 Micrograms). For Drinking Use.—For a discussion of the internal use of radium chloride, see New and Nonofficial Remedies, 1926, p. 302, "Radium and Radium Salts." United States Radium Corp., New York. (*Jour. A. M. A.*, Oct. 2, 1926, p. 1127).

OVARIAN SUBSTANCE SOLUBLE EXTRACT—P. D. & Co.—A solution of an extract of desiccated beef and hog ovaries in physiological solution of sodium chloride, each cc. containing 0.04 gm. of soluble extract. The actions and uses of ovary preparations are discussed in New and Nonofficial Remedies, 1926, p. 269. The product is marketed in 1 cc. ampules. Parke, Davis & Co., Detroit. (*Jour. A. M. A.*, Oct. 16, 1926, p. 1303).

PERTUSSIS VACCINE-LILLY.—(New and Nonofficial Remedies, 1926, p. 352). This product is also marketed in single 5 cc. vial packages containing 5,000 million killed bacteria per cc. Eli Lilly & Co., Indianapolis.

SCARLET FEVER STREPTOCOCCUS ANTITOXIN-LILLY (Refined and Concentrated).—(New and Nonofficial Remedies, 1926, p. 332).—This product is also marketed in packages of one syringe (prophylactic dose) containing sufficient antitoxin to neutralize 150,000 skin test units. Eli Lilly & Co., Indianapolis.

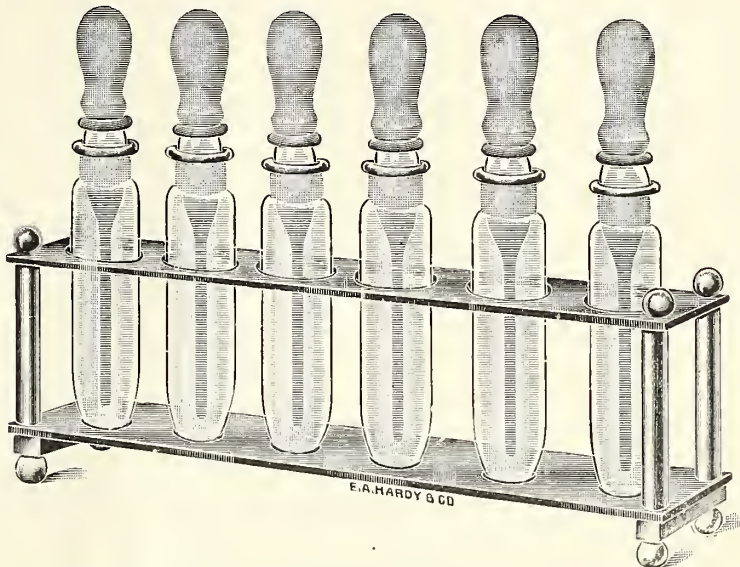
SCARLET FEVER STREPTOCOCCUS ANTITOXIN CONCENTRATED-MULFORD.—(*Jour. A. M. A.*, May 8, 1926, p. 1440). This product is also marketed in single 1 cc. vial packages (for the diagnostic blanching test) containing sufficient scarlet fever antitoxin for five tests. H. K. Mulford Co., Philadelphia. (*Jour. A. M. A.*, Oct. 23, 1926, p. 1393).

POLLEN EXTRACTS-MULFORD.—In addition to the Pollen Extracts-Mulford described in New and Nonofficial Remedies, 1926, p. 33, the following products, marketed in 5 cc. vials containing 500 units per cc., have been accepted: High Ragweed Pollen Extract-Mulford; Low Ragweed Pollen Extract-Mulford; Water Hemp Pollen Extract-Mulford; also the following products marketed in packages of three 5 cc. vials containing, respectively, 250, 500 and 1,000 units per cc.; Lamb's Quarters Pollen Extract-Mulford; Ragweed Pollen Extract (Fall)-Mulford; Timothy Pollen Extract (Spring)-Mulford; Wormwood Pollen Extract-Mulford. (*Jour. A. M. A.*, Oct. 30, 1926, p. 1479).

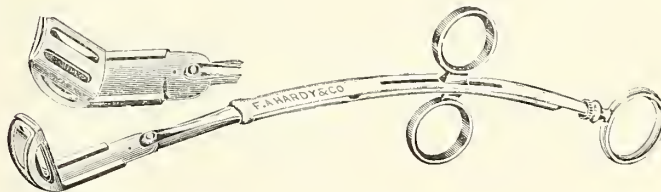
PROPAGANDA FOR REFORM

LAVEX.—Lavex is known to the public best as an alleged cure for "catarrh." It is put on the market by the Lavex Chemical Co., Kansas City. Lavex appears to be a new name for what used to be called "Maigen's Antiseptic Powder," on which the Council on Pharmacy and Chemistry published a report in 1914 and which in 1915 the government declared misbranded because of false and fraudulent claims. Now the postoffice has put a stop to this profitable fraud by debarring from the mails the Lavex Chemical Co. and W. R. Smith, the vice-president and secretary. Lavex is put up in the form of a powder, a white tablet and a pink tablet. Other preparations containing practically the same ingredients as those contained in the "Lavex" powder are sold under the names "Lavex Vitamines," "Lavex Pyorrhea Remedy," "Lavex Hayfever and Rose Cold Treatment," "Lavex Cold Remedy," "Lavanio Douche Powder," "Lavex Stomach Tablets," and "Lavex Throat Tablets." The ingredients of the principal preparation, "Lavex" powder as furnished the postoffice inspector by the promoters are as follows: Water-slaked lime 15 parts, sodium carbonate (soda ash) 15 parts, boric acid 3 parts, aluminum sulphate 2 parts, perfume. (*Jour. A. M. A.*, Oct. 9, 1926, p. 1232).

(Continued on Adv. Page xx)



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TRUTH ABOUT MEDICINES

(Continued from Page 512)

PHYSICAL THERAPY.—The Council on Physical Therapy of the American Medical Association publishes a report on the present status of physical therapy. The Council cautions that while there are certain definite indications for the use of some one or a combination of several physical agencies in the treatment of disease, it is harmful practice to depend on these agencies alone, to use them in place of better proved methods, or to employ them without having first thoroughly studied the patient from the standpoint of diagnosis. The Council warns against the indiscriminate use of physical measures and the danger that their use may lead into dishonest practice or quackery. The physical measures that have been found to have certain therapeutic value include: 1. Heat, natural and artificial. 2. Hydrotherapy. 3. Light. 4. Electricity. 5. Massage. 6. Therapeutic exercises. The Council feels that the following considerations must receive the most careful attention of the medical profession: 1. Physics, physiology and biochemistry must be called on to dispel the empiricism of the past and to prove the value of various physical agencies. 2. Physical therapy must be recognized as a definite part of medicine, practiced and controlled by graduate physicians. 3. Since physical therapy is a definite part of medicine, every medical school should give thorough training in this subject. 4. Persistent, prolonged effort must be made to eradicate the abuses of physical therapy. The Council proposes to point out to the medical profession the advantages and the disadvantages of physical therapy so that its abuses may be reduced to a minimum, and its scientific possibilities may be appreciated. (*Jour. A. M. A.*, Oct. 16, 1926, p. 1302).

THE CAMPAIGN AGAINST NOSTRUMS IN CENTRAL AMERICA.—A Nicaraguan pharmaceutical journal refers

to the efforts made in Nicaragua to protect the public against nostrum exploitation, pointing out that such products are manufactured in the United States, only for exportation, their use being forbidden at home. The blame is placed on American "manufacturing houses which take advantage of the lack of protecting laws as well as the unscrupulousness of dealers." The protest is accompanied by the publication of the names of forty preparations whose sale has been recently forbidden in Guatemala. (*Jour. A. M. A.*, Oct. 16, 1926, p. 1307).

POTASSIUM CHLORATE TABLETS.—The saturated solution of potassium chlorate has been much used as a mouth wash in stomatitis. It is also employed as a gargle in the treatment of pharyngitis. Its value in these conditions is, however, uncertain. Holding tablets of potassium chlorate in the mouth gives a more thorough medication and probably does not harm if one tablet is used at intervals of an hour or two. The internal use of potassium chlorate is no longer recommended. Large doses are actively poisonous. (*Jour. A. M. A.*, Oct. 16, 1926, p. 1323).

NEO-REARGON NOT ACCEPTABLE FOR N. N. R.—The Council on Pharmacy and Chemistry reports that Neo-Reargon, advertised for the treatment of gonorrhea, is marketed by the C. P. Chemical and Drug Co., Inc., New York, with the claims that it is not a mixture but a "definite chemical compound" and without a definite statement of composition. Beside indefinite statements of composition, the advertising contains the claim that the efficacy of the preparation is due to its "high ionic dissociation of silver." The report of the A. M. A. chemical laboratory shows that whatever Neo-Reargon is, its silver is not in ionic or ionizable form. The Council found Neo-Reargon inadmissible to New and Nonofficial Remedies because the statements of composition are mystifying, misleading and erroneous; because the claims of action are misleading; and the claims of therapeutic value unacceptable. (*Jour. A. M. A.*, Oct. 23, 1926, p. 1410).

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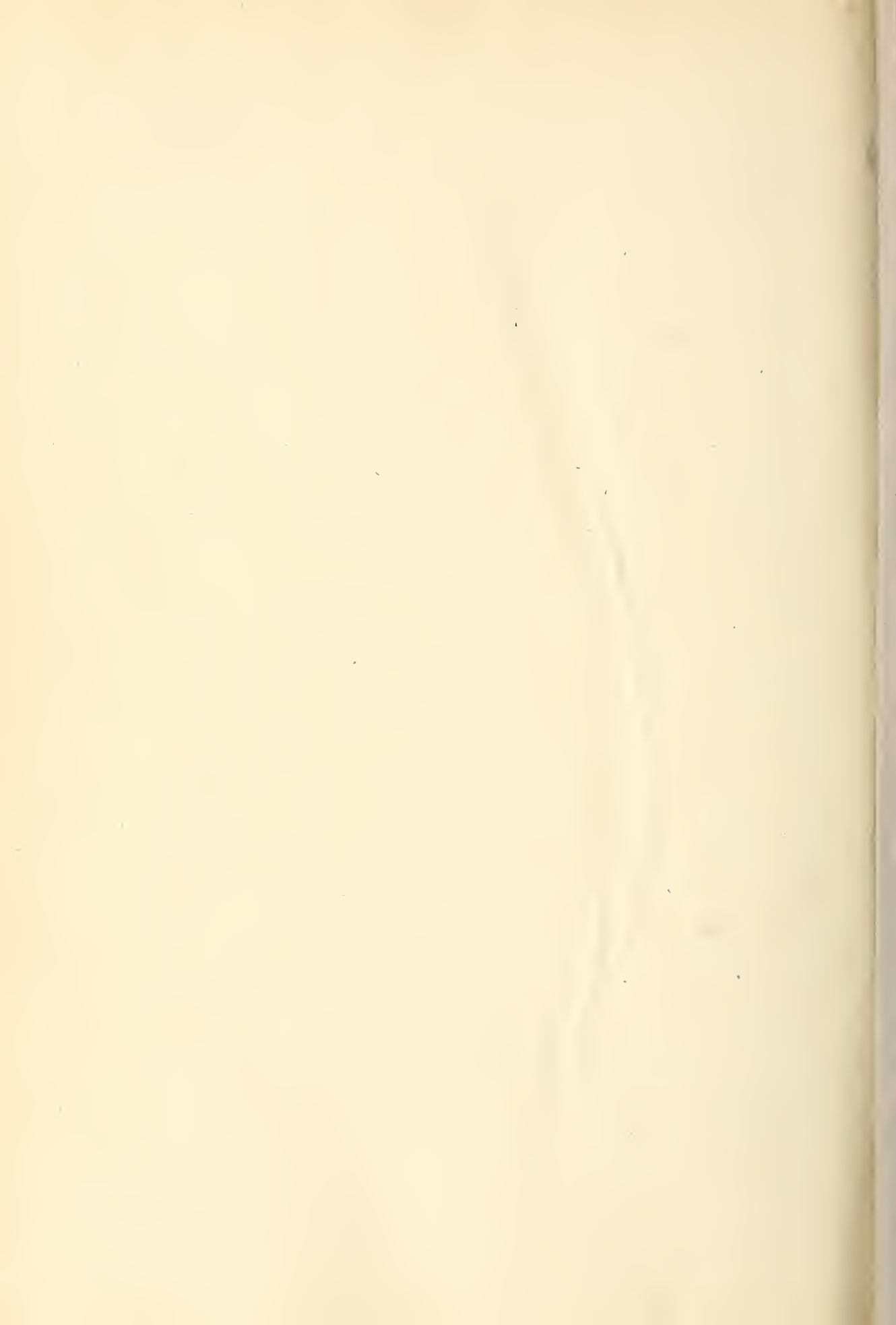
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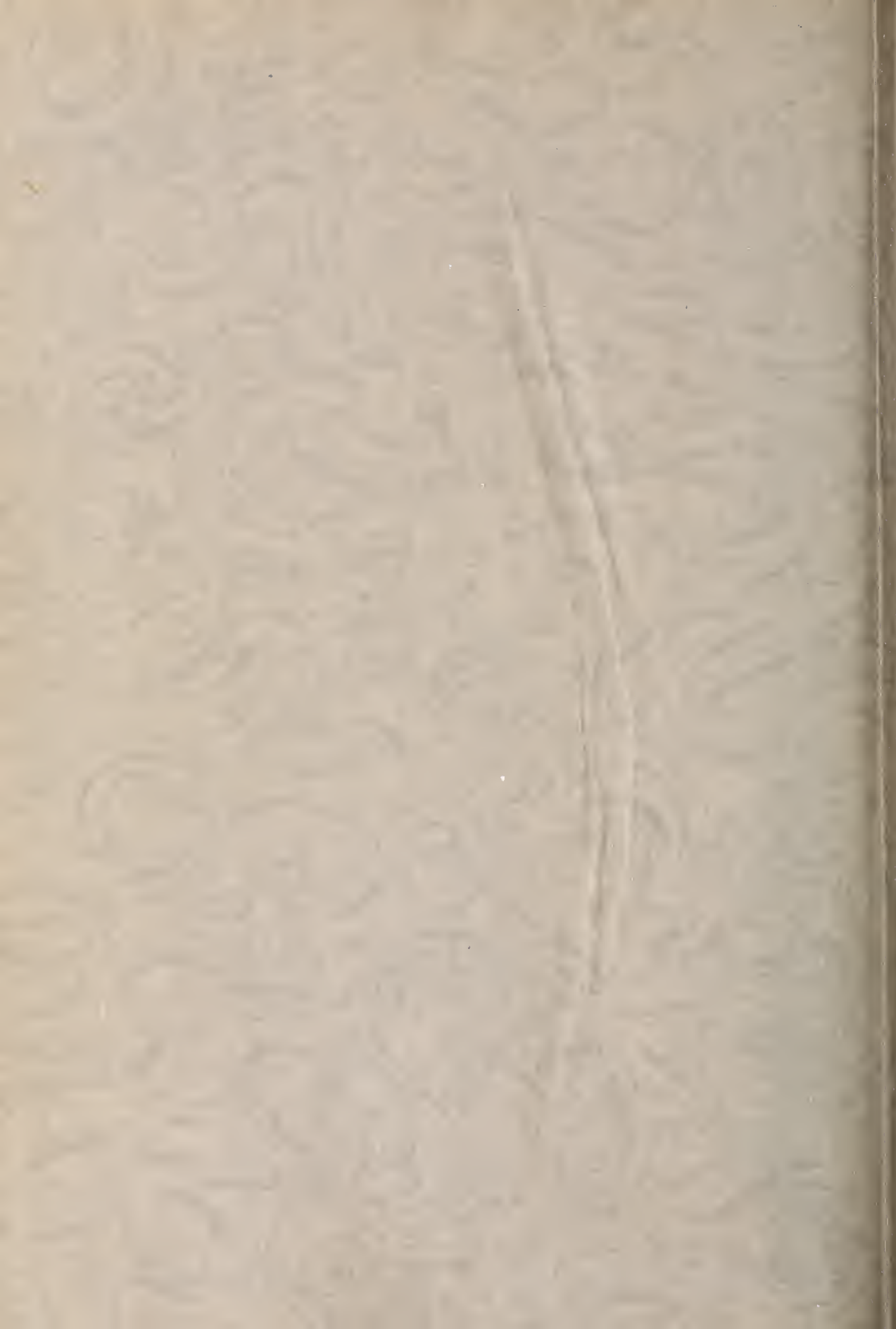
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